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Fourth annual progress report of the Board of Auditors on the implementation of the United Nations enterprise resource planning system

Note by the Secretary-General

The Secretary-General has the honour to transmit to the General Assembly a letter dated 30 June 2015 from the Chair of the Board of Auditors transmitting the report of the Board on the progress in the implementation of the enterprise resource planning system (Umoja).

* A/70/150.

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Letter of transmittal

Letter dated 30 June 2015 from the Chair of the Board of Auditors addressed to the President of the General Assembly

I have the honour to transmit to you the fourth report of the Board of Auditors on the implementation of the enterprise resource planning system.

(*Signed*) Mussa Juma **Assad**
Controller and Auditor-General of the United Republic of Tanzania
Chair of the United Nations Board of Auditors

Enterprise resource planning system (Umoja): key facts

Cost

$385 million	Approved budget
$348 million	Project spend to 31 March 2015 (90 per cent of approved budget)
$439 million	Total anticipated costs to end of 2017

Timeline

December 2008	General Assembly approves project proposal
November 2013	Deployment of Umoja Foundation to peacekeeping operations
March 2014	Deployment of Umoja Foundation to 17 special political missions
June and November 2015	Planned deployment of Umoja Integration (Foundation and Extension 1) across United Nations Secretariat
December 2018	Forecast date for full implementation

Benefits

$140 million to $220 million	Cumulative benefits to be gained by 2019

Fourth annual progress report of the Board of Auditors on the implementation of the United Nations enterprise resource planning system

Summary

1. 2015 marks the tenth year of planning and implementation of a new enterprise resource planning system (Umoja) throughout the United Nations Secretariat. The complex, high-value project is aimed at modernizing a wide range of business processes and systems that are crucial to the efficient and effective management of the Organization.

2. Difficulties were encountered at the start of the project, and implementation plans have been substantially revised on several occasions. The current deployment strategy is to roll out the system to different parts of the Organization (clusters) in the following three functional phases:

(a) **Foundation**. This phase comprises mainly finance and procurement processes essential to supporting the requirements of the International Public Sector Accounting Standards. The processes have been implemented in peacekeeping operations as from November 2013 and in 17 field-based special political missions as from March 2014, and will be implemented in the remaining United Nations entities in two clusters, as from June and November 2015, respectively;

(b) **Extension 1**. This phase mainly involves payroll and human resources management processes, including travel, due to be implemented across United Nations entities and peacekeeping operations in two clusters, as from June and November 2015;

(c) **Extension 2**. This phase involves other important administrative processes due to be implemented as from early 2016, including budget formulation, force planning and programme management, supply chain planning, and conference and event management.

3. In a series of reports issued since 2012 (A/67/164, A/68/151 and A/69/158), the Board of Auditors has recommended significant changes and improvements to the management and governance of Umoja, and to broader business transformation efforts, to which the Administration has responded positively.

4. The present report represents the Board's fourth annual review of progress on the implementation of Umoja and covers project management; the Umoja deployment strategy and organizational readiness; support arrangements; risks concerning the current deployment schedule; and management of the costs and benefits of Umoja.

Key findings

Project management

5. **There has been sustained and consistent improvement in respect of Umoja project management.** The role of process owners continues to mature, and the Administration has started to adopt the concept of process management. Umoja now has unambiguous senior ownership by the Under-Secretary-General for Management and important improvements have been made to the management of strategic issues.

Deploying Umoja and organizational readiness

6. **The Administration continues to be driven by the published project schedule to determine its roll-out plans rather than by any objective assessment of organizational readiness or by the ability to manage business change to generate the expected benefits.** In his sixth progress report (A/69/385 and Corr.1), the Secretary-General recognized the problems experienced with previous deployments and committed the United Nations to a pace of implementation set in accordance with the ability of the Organization to adopt the new system and processes. This has not occurred. The Board considers that implementation according to the current project schedule remains optimistic and high risk, rather than being founded on realistic planning assumptions.

7. **The Administration is aware of the scale of the challenge posed by the roll-out of Umoja in 2015, but considers that the risk of delaying the current deployment schedule outweighs the risks of proceeding in the face of known weaknesses.** The Administration considers that delaying the planned Umoja deployment beyond 2015 would lead to significantly increased project costs, overstretch the resources of the project team and create a range of practical problems arising from having to maintain IMIS and other legacy systems alongside Umoja for an extended period. It also considers that, from the perspective of the staff, the Organization appears primed for the Umoja roll-out; any further delay would lead to a loss of momentum and have an adverse impact on staff morale. Any delay in deployment would also imply a delay in the generation of expected benefits.

8. Management's judgements around deployments of major enterprise resource planning systems are often finely balanced, and the Board understands the rationale adopted by the Administration given the pressure on budgets and staff. The Board considers, however, that the risks associated with implementation have not been adequately assessed by the Administration and contingency planning has been poorly developed.

9. The Administration estimates that the proposed deployment schedule in 2015 will extend Umoja functionality from 5,400 users to an estimated 23,500 users. At the time of its audit, the Board identified a number of gaps in the Administration's preparations for the implementation of Umoja as follows:

(a) **The Administration is significantly behind in its training plans.** Only 19 per cent of the required courses were delivered as at the end of June 2015;

(b) **The duration, depth and quality of some project activities, such as user testing and data conversion, have been curtailed to achieve the deployment dates for clusters 3 and 4;**

(c) **There is minimal time contingency to resolve any problems arising from the deployment to cluster 3 entities in June 2015 before the roll-out to cluster 4 entities in November;**

(d) **The pilot deployment of Umoja Extension 1 in Haiti (United Nations Stabilization Mission in Haiti), focused primarily on the viability of the technical solution and provided very limited assurance over the extent to which new ways of working would be successfully implemented;**

(e) **The Administration has underestimated the level of post-production support users will require in 2015. The way in which the support will be delivered in practice is not clearly defined.** The Administration has adopted a tiered support model for Umoja that is in line with best industry practices; at the time of the audit, however, agreement had not been reached with business areas on how the new arrangements would operate in practice. The Board was informed that arrangements have been agreed since the audit.

10. **The Administration has not clearly demonstrated that the benefits of pressing ahead with the proposed deployment schedule outweigh the potential costs of correcting any problems arising post-go-live.** No formal contingency or risk mitigation plans have been put in place by business units to address the risk posed by a period of prolonged disruption after the implementation of clusters 3 and 4. The Administration is assuming, however, that it will be able to deploy the additional resources required to address any protracted problems in the same way that it has coped with such problems in the past. That approach was successful for the roll-out of clusters 1 and 2, but the scale of the challenge around clusters 3 and 4 is of a different magnitude, owing to the more complex functionality involved and the number of users spread out geographically.

Mainstreaming Umoja support

11. **It is planned that longer-term support and mainstreaming of the Umoja system will be delivered by the Office of Information and Communications Technology.** The United Nations global information and communications technology (ICT) strategy and the sixth progress report of the Secretary-General are consistent in their commitment to the transfer of responsibility for longer-term support for Umoja to the Office. of Information and Communications Technology. The Office is providing help desk facilities and other areas of support, but detailed plans for the transition from the project team to the Office have not been prepared, and the feasibility and costs of the transition are therefore uncertain.

Target operating model

12. **The Organization has not yet defined a clear target operating model within which Umoja will operate.** The Administration recognizes that it does not yet have a clear and agreed model for the United Nations and has recorded the need for one as a key risk mitigation in relation to business transformation. Proposals for a global service delivery model are to be presented to the General Assembly at its seventieth session.

Optimizing Umoja

13. **The Administration has used Umoja implementation to improve a range of its administrative processes; however, there is evidence that further significant optimization of the business processes and underlying systems will be possible.** After the system had been implemented, the Department of Field Support, which has the most experience with Umoja, recognized that some 39 processes could be further improved and re-engineered. Such a situation is not unusual, and optimization of major enterprise resource planning systems after a go-live period is a pattern often experienced by global organizations.

Costs and benefits of Umoja

14. **The Administration expects the costs of the Umoja project to be approximately $439.4 million by the end of the biennium 2016-2017.** Taking into consideration the likelihood that the costs of stabilizing the system in clusters 3 and 4 will exceed current estimates and the remaining work required to complete the design and build of Extension 2 functionality, the Board can give no assurance that the full scope of Umoja can be delivered within the current cost estimate.

15. **The underpinning financial benefits case for Umoja remains heavily dependent upon assumptions made several years ago, and the specific forecast of overall benefits does not enjoy high confidence among senior managers.** The Administration is committed to the delivery of cumulative quantitative benefits of between $140 million and $220 million by 2019. Estimated quantitative benefits of $81.4 million are envisaged in 2017, comprising $30 million from the regular budget and $51.4 million from peacekeeping operations. No credible support for the estimated benefits expected from 2017 onwards has been presented to the Board.

16. **The achievement of the full financial benefits assumes significant re-direction of resources and people.** Planning for benefits that rely on the ability to release posts or flexibly redeploy staff may be unrealistic and can provide a misleading level of confidence in the ability of the Administration to achieve the full potential benefits of Umoja.

Overall conclusion

17. The United Nations is delivering Umoja in accordance with the schedule set out in the sixth progress report of the Secretary-General (A/69/385 and Corr.1). It has improved project governance and management structures and demonstrated strong leadership and commitment to achieving the project schedule. In order to achieve the aggressive implementation timetable for clusters 3 and 4, however, some key project activities have been curtailed, including testing routines and data conversion exercises. Weaknesses in preparing staff for the changes Umoja will introduce and gaps in post implementation support arrangements add further risks to the implementation strategy, and the Administration has not developed adequate contingency plans to mitigate the known risks. Significant challenges were encountered with previous deployments of Umoja owing to a lack of organizational readiness, and there is a high risk that similar problems will emerge in 2015. The Administration is therefore bearing an unknown overall level of risk in deploying Umoja in 2015.

18. Notwithstanding the risks related to implementation, Umoja continues to represent a unique opportunity to drive more cost-effective delivery of mandates by increasing the operational effectiveness of administrative functions through modern, improved ways of working and improved decision-making by exploiting better management information. It is essential that the current level of reliance on the Umoja project team be reduced and that heads of business units now take responsibility for ensuring the successful deployment and effective use of Umoja.

Recommendations

19. In order to maximize the chances of successfully completing the project and achieving its aims, the Board makes the following recommendations:

(a) **Increase the degree to which Umoja is actively and visibly led by all heads of business units, with support from process owners and Umoja project management.** Deployment of Umoja has reached a key juncture where business leaders and process owners must be seen to own the solution and deliver the expected benefits;

(b) **Assess thoroughly the risks attached to the current Umoja deployment schedule and consider contingency and other measures that may be necessary to mitigate those risks.** The Administration's drive to implement Umoja in accordance with its latest estimates of time and cost should be balanced with an objective assessment of the Organization's readiness;

(c) **Independently review the estimated capacity required across the support model to meet expected demands following cluster 3 and 4 deployment and take action to address any gaps.** The demand for support after Umoja Foundation was deployed overwhelmed the support structures in place at the time, and there continues to be greater demand on regional and central support functions than planned. Effective and timely support is essential for clusters 3 and 4, especially given the geographical spread and considerable increase in the number of users who will require support;

(d) **Review the timing and adequacy of funding arrangements for the rationalization of the ICT help desks to minimize any risks to the provision of support to Umoja.** The Office of Information and Communications Technology needs to plan and manage its implementation of the global support model in conjunction with delivering the effective provision of Umoja support;

(e) **Develop a detailed transition plan for transferring responsibility for technical support of Umoja from the project team to the Office of Information and Communications Technology.** The plan should be fully costed and identify the activities, milestones and resources required for transition. The Office, in conjunction with the project team, should then seek to implement the plan sufficiently early to facilitate a smooth and effective transition;

(f) **Refresh the Umoja business case, drawing on the experience of the Department of Field Support and clusters 3 and 4.** The update should reflect realistic assumptions, including the ability of the Administration to flexibly deploy staff;

(g) **Evaluate the case for an Umoja optimization project, considering the links to the proposed global service delivery model and the opportunity it provides to widen business ownership and business leadership of Umoja reforms.**

Follow-up of previous recommendations

20. The Board first audited the Umoja project in 2012, and since then there have been many changes in the implementation strategy as the project has moved from design stage to full implementation across the United Nations. Some of the Board's previous recommendations, while valid at the time, are no longer considered major concerns given the current status of the project and have therefore been closed. Where appropriate, the earlier recommendations have been superseded by new recommendations set out in present report. A commentary on the Board's judgements, together with details of action taken by the Administration is included in annex I.

21. Of the 21 outstanding recommendations contained in the Board's previous reports, all of which were accepted by the Administration, 3 have been fully implemented, 6 are under implementation, 3 have not been implemented and 9 have been closed by the Board. Five of the closed recommendations have been superseded by recommendations set out in the present report, which better address the current status of the project (table 1).

Table 1
Status of implementation of previous recommendations

	Fully implemented	*Under implementation*	*Not implemented*	*Overtaken by events*	*Closed by the Board*
Total	**3**	**6**	**3**	**–**	**9**
Percentage	14	29	14	–	43

I. Background

1. Umoja is a global, complex, high-value project that serves to modernize a wide range of business processes and systems that are essential to the efficient and effective functioning of the Organization. The solution spans most of the Organization's administrative and support functions, including finance and budget, supply chain and procurement, human resources, central support services, and programme and project management. It will also be implemented in entities and locations beyond the core Secretariat, many of which have differing governance and accountability structures, funding sources and working methods.

2. The General Assembly approved the project proposal in December 2008 in its resolution 63/262. The stated high-level aims of Umoja were set out in the first progress report of the Secretary-General (A/64/380), including to support management reform, through improved information, accountability and the better direction of resources, and to achieve more efficient and effective working practices through improved systems and processes. The Administration expects to complete Umoja by 2018 and has committed to delivering quantitative cumulative financial benefits of between $140 million and $220 million by 2019. Other significant benefits expected from the project include more effective delivery of mandates, the freeing-up of resources from the introduction of more efficient and effective ways of working and improved information and transparency to support decision-making.

3. As at 31 March 2015, the Administration had spent $349 million (90 per cent of the approved budget) on the Umoja project. That total excludes the costs absorbed by business units in preparing for the deployment of Umoja. The total anticipated project cost up to the end of 2017 is currently estimated to be $439 million.

A. Deployment strategy

4. The Administration originally planned to deploy Umoja across the Secretariat in two phases by the end of 2013. Over time, those plans were revised to place the project on more realistic footing, in order to reflect lessons learned from earlier roll-outs and to support the implementation of the International Public Sector Accounting Standards (IPSAS). Deployment plans are now based on phased implementation of parcels of functionality across groups of United Nations entities known as clusters. The first two clusters (peacekeeping operations and 17 of 38 special political missions) were implemented in 2013 and 2014, respectively. Cluster 3[1] was deployed in June 2015, to be followed closely by cluster 4 in November 2015, involving the remaining United Nations Secretariat entities. Deployment of cluster 5, related to national staff payroll in peacekeeping operations and special political missions, is currently planned for April 2016. Further information on the organizations deploying Umoja can be found in annex II.

5. The Umoja business processes to be implemented have been grouped together in three main functional groupings known as Foundation, Extension 1 and Extension 2, which comprise:

[1] United Nations Office at Nairobi, United Nations Environment Programme, United Nations Human Settlements Programme, Office for the Coordination of Humanitarian Affairs, Economic and Social Commission for Asia and the Pacific, and United Nations Assistance to the Khmer Rouge Trials.

(a) **Foundation**: finance processes (funds management and financial accounting), supply chain, project management, and sales and distribution. Umoja Foundation is essential to supporting IPSAS requirements;

(b) **Extension 1**: human resources management processes such as organizational and position management, personnel administration, entitlements, benefits and time management. Payroll, travel initiation, travel expenses and online booking are also included;

(c) **Extension 2**: other important administrative processes such as budget formulation, force planning, programme management, supply chain planning, warehouse management and conference and event management, full grants management and commercial activities.

The simultaneous implementation of business functionality contained in Foundation and Extension 1 is referred to as "integration" functionality. Further information on the functionalities included in Foundation and Extension 1 can be found in annex III.

6. Umoja Foundation functionality implemented for clusters 1 and 2 facilitated preparation of IPSAS-compliant financial statements for both peacekeeping operations and the Secretariat in 2013 and 2014. However, a number of significant issues arose regarding the implementation of Umoja in peacekeeping operations, which resulted in the formation of a cross-functional task force to lead intensive corrective action and gave rise to a further revised deployment plan. Difficulties were also experienced with the 2014 pilot implementation of Umoja Integration functionality at the United Nations Stabilization Mission in Haiti (MINUSTAH), which necessitated significant corrective action.

B. Previous comments by the Board and scope of the report

7. In its resolution 66/246, the General Assembly requested that the Board provide annual progress reports on the implementation of the enterprise resource planning project. In its first report (A/67/164), the Board highlighted that it could provide no assurance that the project would be delivered to time and budget. The Board also noted that many of the problems pointed to weak project governance and management, as well as to wider and deeper weaknesses in United Nations governance and management of business transformation.

8. By the time the Board had prepared its second report (A/68/151), the Administration had put the project on sounder footing, but the implementation challenges were about to escalate, with the project moving into a phased, multisite implementation process. In particular, the Board noted systemic issues that needed to be addressed, including the Organization's ability to manage change and the ambitious planning assumptions for the project.

9. In its third report (A/69/158), the Board reviewed the progress made by the Administration in deploying Umoja within the Department of Field Support, drew attention to the need to introduce change to the United Nations in a more effective, planned manner and highlighted that achieving business readiness for Umoja had to be a collective responsibility.

10. The present fourth progress report has been prepared on the basis of audit examinations conducted between April 2014 and April 2015. The examinations

included interviews with key officials based at United Nations Headquarters and in New York and offices away from Headquarters, a review of relevant project documentation held by the Umoja project team and the Secretariat, and visits to project sites in New York; Valencia, Spain; Geneva; and Haiti. In the present report, the Board focuses on:

(a) **Project management**: the key elements of project management arrangements, including project planning, governance arrangements, and the management of issues and risk;

(b) **Umoja deployment**: the key management activities coordinating project delivery and ensuring that key risks at the Umoja go-live stage are well managed;

(c) **Support arrangements for Umoja**: the management and technical support offered to users of Umoja after the go-live stage, and the longer-term arrangements to ensure that Umoja remains current;

(d) **Costs and benefits**: the costs of Umoja, including the indirect, associated costs incurred in the business process, planned further investments, and current and planned benefits from the deployment of Umoja.

11. The Board continues to coordinate closely with the Office of Internal Oversight Services (OIOS) to use the results of its programme of work on the implementation of the enterprise resource planning system, including its audit of the Foundation and Umoja Extension pilots. The Board notes the continued consistency in findings, and the commonality of perspective, on the issues facing the project.

II. Project management

12. In section II, the Board reviews the key elements of project management arrangements, including project planning, governance arrangements, and the management of issues and risks impacting the Umoja project. Solid project management is essential as the project enters the largest and most challenging period of implementation in 2015. The proposed deployments in June and November 2015 will provide functionality covering almost 190 business processes and will increase the number of users of the system from around 5,400 to more than an estimated 23,500.

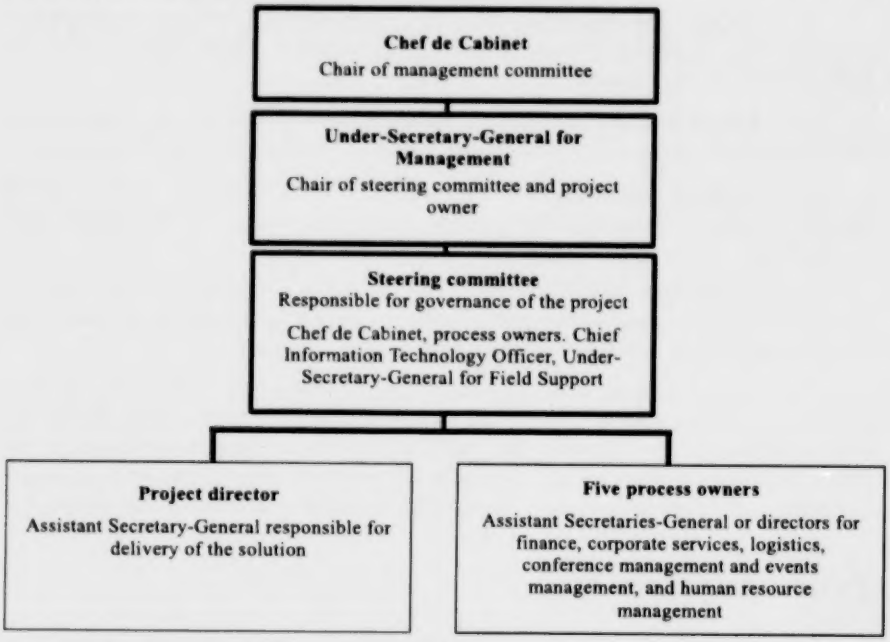
Project governance

13. Figure I illustrates the governance structures put in place to manage the project. The Management Committee reviews Umoja as a standing item on its agenda and receives quarterly progress reports from the project owner. The Committee has not been deeply involved in project management but provides a forum for senior management wherein any serious issue arising in respect of the project can be addressed and discussed.

14. The Under-Secretary-General for Management is the project owner and also chairs the project steering committee. The steering committee includes business process owners, representatives of the Office of the Secretary-General and representatives of departments, and is primarily responsible for governing the project activities. Business process owners on the steering committee act as change agents in their respective functions, including responsibility for business readiness,

the integration of their processes with the Organization's future service delivery model and the delivering of the expected qualitative and quantitative benefits.

Figure I
Umoja project governance


Chef de Cabinet
Chair of management committee
Under-Secretary-General for Management
Chair of steering committee and project owner
Steering committee
Responsible for governance of the project
Chef de Cabinet, process owners. Chief Information Technology Officer, Under-Secretary-General for Field Support
Project director
Assistant Secretary-General responsible for delivery of the solution
Five process owners
Assistant Secretaries-General or directors for finance, corporate services, logistics, conference management and events management, and human resource management

15. The Administration has responded positively to the Board's previous recommendations, and there has been a sustained and consistent improvement to Umoja governance since 2011. The role of process owners continues to mature, and the United Nations has started to adopt the concept of process management and continuous process improvement. Umoja now has unambiguous senior ownership by the Under-Secretary-General for Management, and there have been important improvements to strategic issues management. Most recently, the Secretary-General's scorecard was introduced to capture key project developments. The "three-day rule"[2] was also introduced in order to better resolve major issues or disputes.

Improvements to project structure and organization

16. In addition to improvements made in respect of project governance arrangements, the Administration has developed new structures in the past year to manage the risks around Umoja. In particular, it has:

(a) Appointed a full-time senior deployment coordinator for New York in September 2014. At other sites, including Nairobi and Geneva, the Administration is

[2] The rule requires that an issue be resolved at the level of Umoja senior management within three days or, if that does not occur, that it be escalated to the attention of management one level higher. After three such escalations, the issue will be considered by the Secretary-General.

coordinating its efforts with part-time deployment coordinators, who are supported by small, dedicated project teams. The appointment of such coordinators allows for the complexities and particular challenges associated with implementing Umoja in different entities to be recognized and addressed, while providing a particular focus on New York entities;

(b) Set out project governance structures for deployment sites in the Umoja deployment guide. The guide describes key aspects of Umoja management and high-level activities, serving as a useful document for departments and staff in their preparations to implement Umoja;

(c) Continued to develop the role of the process owners as a key element of the reform process. Process owners are full members of the Umoja steering committee and their roles are now complemented by the appointment of designated process experts who act as delegates on key functional issues;

(d) Continued to use the Umoja project management office for communicating with deployment sites and maintaining a unified perspective on key milestones and risks since each deployment site is now responsible for key activities to ready local organizations for Umoja implementation, including data cleansing and other preparatory processes.

Project planning and management

17. Internal project planning and reporting processes have been improved in response to weaknesses reported previously by the Board (see A/67/164, para. 52; A/68/151, para. 60; A/69/158, para. 79), and provide regular status updates and better support to decision-making across project activities. A project tool is now in place to allow for project plans to be managed by sub-project teams and consolidated by the Umoja project management office. The office currently reviews progress against planned activities, assesses risks and notes their proposed or potential mitigation, while also producing a weekly status report for the steering committee and scorecard analysis for the Secretary-General. Such activities facilitate close monitoring and control of project activities.

18. The Umoja team has also started to track project efforts against estimated and actual delivery, providing an estimated breakdown of the work involved by task. Time spent on activities can be collected from timesheets for contractors and consultants and collected on an informal basis from United Nations project staff, who do not complete timesheets. Although the process will not be wholly accurate, it provides an improved measure of staff time expended and overall progress of activities compared with the budget consumed.

19. At the end of March 2015, the project team reported that it had spent approximately $348 million (equivalent to approximately 90 per cent of the approved budget to the end of 2015) and delivered well in excess of 90 per cent of Foundation and Extension 1 functionality. It also had completed the design of 40 per cent of Extension 2 functionality. Since the Administration has not adequately addressed the Board's previous recommendations on the need to build clear links between the project budget, expenditures and deliverables, the Board is still unable to provide assurance that the project has delivered outputs proportionate to total costs incurred.

Issues and risk management

20. The project team maintains a register of risks, assumption issues and dependencies and produces a weekly update report for project management purposes.

21. In March 2015, the project management office reported significant risks, including: the lack of a resource contingency to deliver key Umoja software; the lack of development resources in key areas (notably financial accounting and funds management); a five-week delay in testing new enhancements to Umoja Extension 1 functionality; the absence of a plan to deploy the upgraded functionality to MINUSTAH in May 2015; and the withdrawal of one mock data conversion cycle for cluster 4 (which increases the risk of incomplete or erroneous data conversion).

22. It was notable that although the risks reported were significant, the proposed mitigating actions did not include any consideration of revising the implementation dates. The preferred approach was to ensure that the project schedule not be interrupted by problems. As a consequence, there is a preference for curtailing planned activities and accepting risks to business readiness, which might be mitigated more effectively in some cases by a pragmatic revision of the deployment schedule.

23. The overall Umoja project plan also tracks important activities undertaken outside the project team, such as the development of software for help desk support and the establishment of a centre in Vienna that would specialize in producing business intelligence and related reporting. Risks or slippage in those activities, however, are not currently escalated to the project management office, nor were they explicitly considered or included in the weekly project steering committee scorecard. While the project team does not own those risks and cannot therefore directly address them, they are important to the overall success of the project and should receive appropriate attention from the steering committee and senior management. Overlooking those risks may lead to unforeseen problems arising from implementation.

24. Although the risk management procedures in place are considered appropriate for the project and allow the project management office to monitor and report progress to the steering committee and senior management, there are some gaps in the management of risks in activities outside the project. For example, the development of i-Need for help desk support and the establishment of a centre in Vienna specializing in producing business intelligence are included in the overall project plan, but risks or slippage in those activities are not currently escalated and considered by the project management office. Peripheral activities are not included in the weekly steering committee scorecard, which is focused on risks by entity and sub-entity that may have an impact on the planned go-live date for cluster 3. There is also evidence that the completeness of the solution and wider organizational readiness may be compromised to enable the project deployment schedule to be achieved. That issue is examined in greater depth in section III below.

III. Umoja deployment strategy

25. In section III, the Board examines management activities for coordinating the delivery of Umoja and the management of key risks around the deployment strategy.

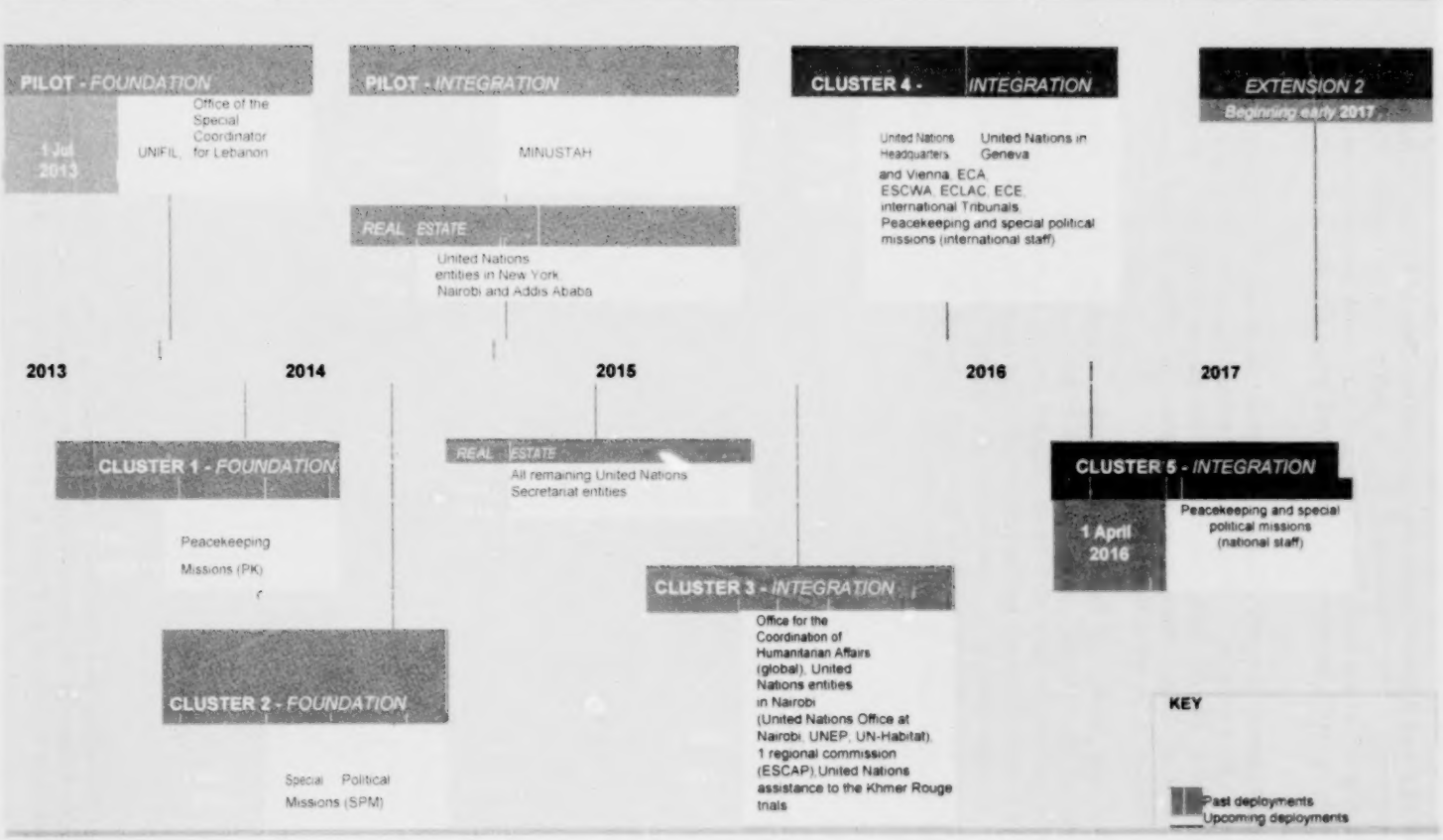
In determining the deployment strategy, management takes into account a number of technical and operational factors concerning the viability of the technical solution as well as the readiness of the Organization and its staff to use the system. Those management judgements can be finely balanced as it may not be possible to reach a perfect situation or find a universally acceptable time to go live with a new global system.

26. The Administration originally planned to deploy Umoja across the Secretariat in two phases by the end of 2013. Those plans have been revised over time and are now based on the phased implementation of parcels of functionality across dispersed groups of United Nations entities known as "clusters". The current deployment schedule is shown in figure II below.

27. The first two clusters of entities (peacekeeping operations and 17 special political missions) implemented Umoja Foundation in 2013 and 2014, respectively. Cluster 3[3] was deployed in June 2015, to be followed closely by the deployment of cluster 4, which covers the remaining Secretariat bodies, in November 2015. Cluster 5 deployment of Umoja Integration functionality for national staff in peacekeeping operations and special political missions is currently planned for April 2016 (see figure II). Extension 2 functions will be deployed in early 2017 on an entity-wide basis.

[3] United Nations Office at Nairobi, United Nations Environment Programme, United Nations Human Settlements Programme, Office for the Coordination of Humanitarian Affairs, Economic and Social Commission for Asia and the Pacific, and United Nations Assistance to the Khmer Rouge Trials.

Figure II
Current deployment timetable


PILOT - FOUNDATION
1 Jul 2013
Office of the Special Coordinator for Lebanon
UNIFIL
PILOT - INTEGRATION
MINUSTAH
REAL ESTATE
United Nations entities in New York, Nairobi and Addis Ababa
CLUSTER 4 - INTEGRATION
United Nations Headquarters
United Nations in Geneva and Vienna, ECA, ESCWA, ECLAC, ECE, international Tribunals, Peacekeeping and special political missions (international staff)
EXTENSION 2
Beginning early 2017
2013
2014
2015
2016
2017
CLUSTER 1 - FOUNDATION
Peacekeeping Missions (PK)
REAL ESTATE
All remaining United Nations Secretariat entities
CLUSTER 5 - INTEGRATION
1 April 2016
Peacekeeping and special political missions (national staff)
CLUSTER 3 - INTEGRATION
Office for the Coordination of Humanitarian Affairs (global), United Nations entities in Nairobi (United Nations Office at Nairobi, UNEP, UN-Habitat), 1 regional commission (ESCAP), United Nations assistance to the Khmer Rouge trials
CLUSTER 2 - FOUNDATION
Special Political Missions (SPM)
KEY
Past deployments
Upcoming deployments

Umoja Foundation

Finance (funds management and financial accounting), supply chain (real estate, plant maintenance, logistics execution and procurement), project management, and sales and distribution (third-party procurement services and billing).

Umoja Extension 1

Organizational and position management, personnel administration, entitlements, benefits, time management, payroll, travel initiation, travel expenses and online booking.

Umoja Integration

Joint deployment of both Umoja Foundation + Umoja Extension 1.

Umoja Extension 2

Budget formulation, force planning, programme management, supply chain planning, warehouse management, conference and event management, full grants management and commercial activities.

(Footnotes on following page)

(Footnotes to Figure II)

Source: Umoja project team

Notes: The "integration" deployments in clusters 3 and 4 consist of the functionalities from both Foundation and Extension 1; further information on where Umoja is being deployed is contained in annex II.

Abbreviations: UNIFIL, United Nations Interim Force in Lebanon; MINUSTAH, United Nations Stabilization Mission in Haiti; ECA, Economic Commission for Africa; ESCWA, Economic and Social Commission for Western Asia; ECLAC, Economic Commission for Latin America and the Caribbean; ECE, Economic Commission for Europe; ESCAP, Economic and Social Commission for Asia and the Pacific; UNEP, United Nations Environment Programme; UN-Habitat, United Nations Human Settlements Programme.

28. As at 31 March 2015, the following functionality had been deployed:

- **Umoja Foundation.** Umoja Foundation, which provides key finance functions, is fully operational in all United Nations peacekeeping operations, special political missions supported by the Department of Field Support and offices at United Nations Headquarters involved in the support and oversight of those missions. The system is now considered stable, but it experienced significant difficulties upon implementation, which took over six months to resolve.

- **Integration of Umoja Foundation and Extension 1.** This was deployed in pilot format at MINUSTAH on 1 July 2014. The pilot deployment also experienced significant difficulties, some of which were to be expected, and identified wide-ranging problems that required extensive corrective action. An upgraded version of Extension 1, which addressed the major problems experienced in the pilot, was developed in time for deployment to cluster 3 in June 2015.

- **Real estate management module.** The module was deployed in November 2014 to all United Nations offices globally, allowing the Organization to track, monitor and manage all its real estate, leases and related expenditures using a centralized system. Approximately 400 users are registered on the system.

29. These are commendable achievements and demonstrate that Umoja has now transitioned from a developing system into a live production system. The Administration estimates that approximately 5,400 users in 32 countries and 300 sites were using the new functionality as at 31 March 2015. A summary of the estimated number of users of Umoja is set out in table 2 below.

30. The information in table 2 illustrates the significant increase in the scale of the deployments envisaged under clusters 3 and 4 compared with previous deployments. In total, across clusters 3 and 4, approximately 190 new business processes will be deployed to some 60 different entities and some 23,500 users. That compares with approximately 120 new business processes across approximately 5,400 users for clusters 1 and 2.

Table 2
Estimated number of Umoja users

Date	*Phase*	*Entities*	*Transactional users*	*Self-service (Employee self-service management self-service)*	*Total users*
1 July 2013	Across all phases[a]	United Nations Headquarters users and production support	1 085	0	0
1 July 2013	Pilot (Foundation)	UNIFIL and Office of the Special Coordinator for Lebanon	183	0	183
1 November 2013	Cluster 1 (Foundation)[b]	Peacekeeping missions	2 498	0	2 498
1 March 2014	Cluster 2 (Foundation)	Special political missions	1 036	0	1 036
1 July 2014	Pilot (Integration: Foundation + Extension 1)	MINUSTAH	450	1 227	1 677

Date	*Phase*	*Entities*	*Transactional users*	*Self-service (Employee self-service management self-service)*	*Total users*
1 November 2014	Real estate (Foundation)[a]	Across all Secretariat entities	412	0	0
1 June 2015	Cluster 3 — Integration	ESCAP, UNEP, UN-Habitat, United Nations assistance to the Khmer Rouge trials, United Nations Office at Nairobi and Office for the Coordination of Humanitarian Affairs	3 730	2 665	6 395
1 November 2015	Cluster 4 — Integration (estimate)[c]	Geneva, New York and Vienna hubs, ECA, ECLAC, ESCWA, International Criminal Tribunal for Rwanda, United Nations Office to the African Union, peacekeeping and special political missions (international staff)	6 695	5 051	11 746
1 April 2016	Cluster 5 — Extension 1 (estimate)[c]	Peacekeeping and special political missions (national staff)	965	18 332	19 297
Total			**15 557**	**27 275**	**42 832**

Source: Administration's data.

Abbreviations: MINUSTAH, United Nations Stabilization Mission in Haiti; UNEP, United Nations Environment Programme; UN-Habitat, United Nations Programme for Human Settlements; ECA, Economic Commission for Africa; ESCAP, Economic and Social Commission for Asia and the Pacific; ECLAC, Economic Commission for Latin America and the Caribbean; ESCWA, Economic and Social Commission for Western Asia.

[a] Users not included in the total user figure to avoid double counting.

[b] Excludes MINUSTAH to avoid double counting.

[c] The Administration's estimated user figure is based upon the report of the Secretary-General on the composition of the Secretariat staff demographics (A/69/292).

Lessons learned from previous deployments

31. Previous deployments of Umoja have experienced significant difficulties upon implementation. Additional costs, efforts and corrective actions were required to address and resolve problems arising immediately upon implementation in peacekeeping operations in 2013, and following the pilot deployment to MINUSTAH in 2014. Although the difficulties were resolved in time to ensure that there was no impact on the fair presentation of the peacekeeping financial statements, some residual issues remain. For example, the Administration informed the Board that at the end of March 2015 there were an estimated 37,650 open accounts payable items relating to transactions processed by the Regional Service Centre at Entebbe, Uganda. Constant monitoring and reporting of the numbers of open items was introduced to contain the number of such items to manageable proportions, but the Board notes that the number of open items has in fact increased compared with the volume reported in 2014 (27,000 as at April 2014) (see A/69/158, para. 27). This suggests that the root causes of these problems may not have been addressed adequately despite the Administration's efforts.

32. In its third report (A/69/158), the Board noted that the Administration had identified four key lessons from previous Umoja implementations and post-implementation reviews:

- The early involvement of the management and the staff and continual assessment of activities on site is essential to providing the necessary focus on critical activities such as data collection and conversion;
- Thorough preparation of master data and access controls is essential;
- Business process re-engineering is a necessary part of the design and execution of the programme;
- An individual migration path should be designed for each entity to support implementation because each entity has a different starting point in terms of existing process flows, legacy systems and governance structures.

33. The Administration and the steering committee responded by making changes in the areas of training and readiness assessment and by emphasizing collective responsibility for change management. The main actions proposed were:

- Increased senior business involvement in business change and decision-making following the establishment of process owners in 2013;
- Increased investment in training and communication in order to improve the preparation of staff on the ground to support Umoja preparation and cutover and to provide first-line support through the Umoja Academy;
- Establishing new structures and teams to increase local involvement in site readiness by appointing senior deployment coordinators and business readiness managers as well as by seeking timely involvement of staff from the business to support both technical cutover and the transition to new Umoja processes.

34. The steps taken by the Administration should mean that the Organization would be better placed to implement Umoja than it had been previously. However, the effectiveness of the action taken will only be fully tested when deployment to clusters 3 and 4 is complete.

Pilot exercise for the United Nations Stabilization Mission in Haiti

35. The experience gained from piloting Umoja Extension 1 in July 2014 in MINUSTAH illustrates some of the risks around the larger-scale deployments to clusters 3 and 4. The Board visited the pilot site in February 2015 and concluded that neither the Umoja system nor the peacekeeping operation and its staff were adequately prepared:

(a) Local process experts were not trained ahead of the deployment;

(b) Critical elements of the expected Umoja solution were not ready in time for deployment in July 2014, including aspects of self-service functionality;

(c) Workarounds were required in several areas, including leave approval and goods shipments where system functionality was incomplete;

(d) Key business intelligence reports were not available, requiring some staff to maintain a system of parallel records outside Umoja;

(e) Limited, if any, changes were made to accommodate new ways of working. Users often reinstated old ways of working outside the new Umoja processes;

(f) Considerable support for the pilot was also required from New York.

36. A staff satisfaction survey revealed that 39 per cent of staff were "satisfied" or "very satisfied" with the overall implementation. However, respondents expressed a general sense of dissatisfaction with inadequate preparation and premature system roll-out. To meet all the user requirements identified during the pilot, the Umoja project team estimated that a total of 90,000 hours of effort was required. Although that figure was subsequently reduced to 20,000 hours to provide only the essential functionality agreed by the Umoja process owners, the actual work took 38,000 hours. Funding for the work was obtained by redeploying the existing Umoja budget.

37. As a consequence of the way in which the pilot was deployed, the capability of local United Nations entities to support Umoja deployment with minimal central oversight remains untested. The MINUSTAH pilot deployment provided some important insights into the issues around adoption of Umoja in the field, but valuable opportunities were missed to prove the effectiveness of improvements made to the Umoja roll-out process following cluster 2 and the capability of local operations to lead business transformation on the ground. For example, although lessons were captured, there was no structured approach to using the lessons to continuously improve the implementation approach.

Business readiness

38. The Administration monitors the status of a wide range of activities using business realization plans to assess the overall readiness of the Organization to deploy Umoja successfully. The plans monitor the progress of key technical activities designed to confirm the viability of the technical solution, such as system testing, data conversion and the adequacy of network capacity, as well as wider business activities such as user training, change management and post-production support. It is essential that the efforts of the Umoja project team, senior management and the heads of business units are well coordinated and completed according to schedule in order to minimize the risks to the successful deployment of Umoja.

39. As at the end of March 2015 a number of gaps in preparations were evident. For example, integration testing for the new and enhanced functionality of Extension 1 was running five weeks late and the production of training materials for clusters 3 and 4 was also approximately six weeks behind schedule. The release of the upgraded software for Extension 1 was planned for early May 2015, only a few weeks before the roll-out of Umoja to cluster 3 on 1 June 2015. That had a further impact on the production of up-to-date and comprehensive training materials for the roll-out of cluster 3.

40. The precise arrangements for post-production support were also unclear at the time of the audit. While the Umoja project team was able to offer extensive support to clusters 1 and 2 and also stepped in to support both pilot exercises in Umoja (MINUSTAH and United Nations Interim Force in Lebanon), that scale of post-implementation support may not be sustainable for the much wider deployments of clusters 3 and 4, which involve four times the number of users and over 60 different entities. The heads of business units therefore need to ensure that adequate user support will be available and need to play a much stronger and more visible role in leading the engagement of the business with the project.

Managing deployment of Umoja

41. In its previous report on Umoja (A/69/158), the Board reported that the deployment schedule approved in February 2014 was unlikely to be met. That

turned out to be the case, and in September 2014 the steering committee approved a revised Umoja roll-out plan, moving the deployment of the Umoja Integration solution to cluster 3 from November 2014 to June 2015, and of cluster 4 from June to November 2015, a pragmatic approach under the circumstances.

42. The revision of the project deployment schedule increased the preparation time for cluster 3, but reduced the time for the deployment to cluster 4 from seven to five months. In to achieve that, the Administration elected to reduce the number of test events for cluster 4 and also removed any contingency for the project team to respond to protracted problems with cluster 3 or the rework of software (i.e., the software would be "frozen" once deployed to cluster 3). The decision was taken in the knowledge that cluster 4 represents the largest and most challenging deployment to date and would only be possible if time spent by the Umoja project team supporting cluster 3 were minimized.

43. The experience of Umoja implementations to date is that considerable additional corrective activity has been required post-go-live in cluster 1. That experience, the compressed schedule and the lack of contingency for intensive support after deployment in cluster 3, presents significant risks to the timing and quality of cluster 4 deployment.

Umoja training

44. The Administration has responded to lessons learned from initial deployments of Umoja and has continued to develop its training plans to support deployments. Building on the establishment of the Umoja Academy in 2014, it has also established regional training centres in Geneva, Bangkok, Nairobi and New York and has set out responsibilities for central, regional and local entities in developing and delivering training. The Administration also substantially increased the training budget and now expects to spend $26.3 million on training activities by the end of 2015, whereas it had previously estimated it would spend just $7.4 million.

45. The Umoja Academy is now providing a range of training courses for different roles, including managers, experts and end users. By the end of June 2015, it had trained 3,327 staff, including 914 local process experts and an additional 300 local process experts trained by the Department of Field Support (the cost of training by the Department was not met by the Umoja project budget).

46. The Administration has, however, trained far fewer process owner process experts than planned. The intention was for those experts to have the most in-depth knowledge of and expertise in the new business processes within Umoja; despite the importance of the concept, however, commitment by the business units to appoint and commit their staff to that role has been poor. The Umoja project team originally envisaged 50 individuals in those roles for clusters 3 and 4. That has not occurred, however, owing to situations in which staff have been recalled by their departments or have only been able to work part-time in the role. At the time of the audit there were only 13 staff in those roles.

47. The Administration has since informed the Board that in order to increase the number of experts available to support users, process owners have identified staff with relevant knowledge of Umoja as process expert service providers. There are approximately 100 staff in place, comprising 38 process owner process experts and 62 process expert service providers. Whereas there was a clear level of expertise defined for process owner process experts, the basis for selecting staff to perform

the role of process expert service providers and their level of training and expertise compared with that of a process owner process expert was unclear.

48. The Administration also continues to train an increasing number of local process experts to provide support to end users; however, because there has been no assessment of the numbers required, the Administration does not know whether it has sufficient local process experts employed at each site and entity. The Board also notes that only 19 per cent of the planned training courses were delivered as at the end of June 2015.

49. Given the acknowledgement of the collective responsibility required to develop business readiness across the Organization, it is a matter of some concern that business units were unable to prioritize the delivery of process experts.

Change management

50. The impact of the changes introduced by Umoja has also not been systematically evaluated by the business units. As noted during the examination of the MINUSTAH pilot, there is a tendency for staff to revert to old ways of working unless the adoption of new ways of working is carefully planned and managed.

51. The deployment of Umoja will introduce many staff to ways of working that are very different from current procedures. Self-service functionality, for example, is not widespread in the United Nations Secretariat, and the reduction of the number of review and approval steps represents a major change in some areas where multiple layers of approval had been the norm. The workload of certifying officers will increase in some areas; and the role of budget officers will diminish in areas where line managers will play a more direct role in approving charges to the budget than they had previously.

52. Managing those changes and deriving full benefit from them requires an understanding of the main areas of change as well as the preparation of users for those changes, including introducing new organizational structures and procedure instructions where appropriate. The Administration, however, have not developed a change management framework to guide and support the implementation of the new business processes nor have business units assumed responsibility for doing so.

Overall readiness assessment

53. The current deployment strategy does not allow for any slippage on the project's critical path to deploy Umoja Integration functionality in 2015. Training arrangements have been improved but have not been delivered as planned, and the duration, depth and completeness of some project activities such as data conversion and testing have been curtailed in order to meet the project deployment timeline. Other tasks have barely begun, for example, a consolidated Umoja user manual is not yet available and key United Nations procedure manuals and administrative instructions have not been updated to reflect the new ways of working under Umoja.

54. The Secretary-General recognized the weaknesses in the deployment of Foundation to peacekeeping operations in his sixth progress report, in which he committed to the pace of implementation being "set in accordance with the ability of the Organization to meet the new paradigm" and committed that change management and organizational readiness would therefore be the driving factors for the planning of future roll-out plans and the project budget. There is a tension, however, between the Administration's strong and repeated intention to deploy Umoja in accordance with its latest time and cost estimates, and its commitment to deploy according to the

Organization's readiness to implement Umoja. Accordingly, the Board challenges the extent to which the Administration has fully learned from those deployments and the extent to which the Administration has adopted change management and organizational readiness as driving factors for its roll-out plans and project budget.

55. Decisions around when, and how best, to implement new enterprise resource planning systems are often finely balanced, and the Administration acknowledges that it is carrying a number of risks. However, it considers that the risks of delaying Umoja implementation beyond 2015 far exceed the risks associated with the current deployment strategy because of the following:

(a) Owing to the high monthly burn rate, project costs will increase significantly since any delay to clusters 3 and 4 would further delay future milestones;

(b) The level of stress and demand placed on cluster 4 entities and on the Umoja project team cannot be sustained beyond November 2015;

(c) Keeping a hybrid environment beyond 2015 increases costs, may threaten sustainability of IPSAS compliance and creates internal control challenges owing to split reporting and controls around budgets, accounts payable and receivables;

(d) The effort involved in managing large numbers of staff moving between entities operating the Umoja system and entities operating the IMIS system would become unsustainable;

(e) As Umoja software will be frozen once deployed to cluster 3, any delay in deploying to cluster 4 will delay many important upgrades or enhancements that are critical to the generation of benefits, thus undermining the project business case and return on investment.

56. The Administration's main contingency appears to be additional work, outside normal working hours, required of the project team and deployment teams to fix problems as they arise and expedite any late delivery. Given that the Administration recognizes the enormous and sustained pressure the Umoja project team has been under, the Board considers that to be optimistic thinking rather than realistic planning and management. Overall, the Board considers the current deployment strategy to be a high-risk approach, and that it may result in a high level of post-implementation support, which, at this point, remains unplanned for. The Administration needs to take urgent steps to understand and mitigate the risks caused by the current deployment strategy.

IV. Support arrangements for post-go-live

57. In section IV, the Board examines the proposed support arrangements for entities using Umoja and the Administration's capacity to manage the increased demand for support after deploying clusters 3 and 4. It also considers the status of the Administration's planning for mainstreaming Umoja as a "business as usual" operation.

Umoja post-production support model

58. In order to function effectively as a global enterprise system, Umoja requires an integrated support model capable of providing assistance to users 24 hours a day

worldwide. The Administration has developed a tiered support organization model intended to provide support to all Umoja sites with local, regional and central support locations. The approach is considered to be in line with good industry practices and is designed to provide local support desks and access to more detailed technical assistance from regional help desks.

59. At the time of the audit, the Administration was still establishing the model though new structures, ways of working and procedures, including:

- Training of local process and ICT experts at the "tier 1" level to log queries and provide first-line support. Nearly 900 local process experts and 41 ICT experts have been trained;
- Provision of new "tier 2" support for cluster 4 entities by the Office of Information and Communications Technology for ICT-related issues; detailed arrangements for business support provision, however, were still being developed;
- Expansion of "tier 2" support provided by the support centres in Brindisi, Italy, and Valencia, Spain, from 30 to 50 staff in order to support staff using the new Umoja functionality for Department of Field Support entities and to train extra local process experts. Whether those services will be available to entities outside the Department's responsibility was unclear;
- Tier 3 support has been established to include Umoja project team business experts and consultancy support services provided by the project integration partner.

Alignment with a global information and communications technology strategy

60. In December 2014, the Administration adopted an ICT strategy that included the establishment of a global ICT support model over the next three years. The immediate impact is that part of the revised support model has an impact on Umoja. For example, the proposal to consolidate local ICT help desks into regional help desks means that the support functions currently provided by some 60 help desks in New York, would be brought together into one centre under the global model. Those helpdesks provide support to a range of different systems and applications and have very limited knowledge of Umoja. At the time of the audit, however, the Office of Information and Communications Technology had not finalized agreements with the business areas on how the new support arrangements would operate, including staffing and future funding arrangements. Current plans to consolidate the help desks before and during the deployment of clusters 3 and 4 could have an impact on the smooth delivery of Umoja support when it will be most needed.

61. There is also a lack of clarity around the transition of Umoja support to the Office of Information and Communications Technology. Overall responsibility for Umoja will be transferred to the Chief Information Technology Officer, but there is no agreement as to when the support element will be completely transferred. The Umoja project team, the Department of Field Support and the Chief Information Technology Officer all have some involvement, and the lack of clarity may result in gaps in the Umoja support model. For example, reporting on support demand and the issues being raised is currently shared between the Umoja project team and the

Department but, as deployment expands to non-Department entities, it is unclear who will manage this in the interim.

Support capacity

62. The current level of support is tracked by monitoring the number of "work orders tickets" arising from queries from users. Using the data available since October 2013, the project team forecast the level of support required for clusters 3 and 4, factoring in planned increases in scope and scale. The forecast indicates that support levels need to increase approximately threefold for cluster 3 in June 2015 and nearly fourfold for cluster 4 by November. Support centres in New York, Geneva and Nairobi are preparing facilities based on those statistics and the ongoing experience of the current Umoja support teams in the field, and in Brindisi and in Valencia.

63. When the Administration deployed Umoja Foundation in 2013 and 2014, the backlog of unresolved support incidents grew at an alarming and unacceptable rate. The Umoja project team got drawn into fixing issues that should have been dealt with at lower-level tiers 1 and 2. That situation diverted them from working on Extension 1 and contributed to delays in the project schedule.

64. The Board's analysis of experience up to April 2015 found that tier 1 support had resolved only around 10 per cent of queries received against a target level of 45 per cent. As a result, between September 2014 and February 2015, tier 2 and tier 3 support resolved around 85 per cent of queries when they were targeted to resolve less than half of that (40 per cent). The Administration informed the Board that the tier 1 query resolution rate had improved significantly after the establishment of the global enterprise help desk in June 2015.

65. The Administration is taking mitigating actions to bolster support arrangements, for example, by establishing a separate support structure for specific functions, such as the employee self-service, which is one of the most challenging areas of change for United Nations staff to implement. The expansion of Department of Field Support capacity in its two regional support centres also offers the possibility that those centres would be able to support non-Department users as clusters 3 and 4 deploy. No firm plans for that are as yet in place, however.

66. At the time of the Board's examination, the Administration did not have enough staff at tier 2 to meet its planned capacity. The Board has since been informed that the Administration had performed an analysis of the likely level of support to meet user queries and had increased resources significantly, including 100 staff at level tier 2 b.

67. As reported in section III above, at the time of the audit there were only 13 process owner process experts trained and performing full-time Umoja roles out of 50 planned. The lack of skilled experts will be most felt after cluster 3 deployment. With cluster 4 deploying only five months later, supporting the deployment of the much larger cluster 4 entities will quickly take priority over providing post-deployment support to cluster 3 entities.

Mainstreaming Umoja

68. Once significant implementation of a system has occurred, responsibility for its operational running and user support should be transferred from the project team

to the Organization. While it is normal for the project team to provide an initial period of intensive support after deployment, much of the operational "business as usual" operational tasks should be under the responsibility of mainstream departments soon after implementation. Current mainstreaming plans envisage the Chief Information Technology Officer taking over responsibility from the project team for running Umoja. That will include:

(a) Ongoing systems support and maintenance capacity to manage, maintain and enhance the Umoja production environment;

(b) Yearly building and testing programmes of work to integrate new functionality into the production environment;

(c) Periodic releases of new functionality.

69. Given the phased deployment of functionality, however, under current plans the Administration will not transfer that responsibility to the Chief Information Technology Officer and her staff until three years after the first deployment of Foundation. In the interim, the Umoja project team will continue to manage the remaining deployments while also having to provide technical support for the live system.

Transition planning

70. The Office for Information Communications Technology is currently assessing how it will assume responsibility for Umoja. It will then develop a detailed plan to define the scope of ICT and business support functions, including considering resource needs, sourcing strategy, staff transition and installation of upgrades. The Office will also need to consider how it will manage any remaining legacy systems. Once the report has been completed, the Office will then be able to decide how best to proceed, but this will not occur until after cluster 3 deployment, at the very earliest.

71. With Foundation now having been deployed for over a year, there are already operational tasks that the Office needs to consider. For example, the software provider releases major upgrades every three to five years; it is therefore possible that the next upgrade will occur before the deployment of Extension 2 functionality is complete. Major upgrades can be a significant project in their own right, but will need to be carefully managed if the system is to remain current.

72. Given the complexity and scale of Umoja, it is the Board's view that the Administration should already be putting firm transition plans in place. When Umoja goes live in June and November 2015 for clusters 3 and 4, the bulk of business processes will have been deployed and key elements for business as usual operational running should therefore be in place. However, it is not clear if any such activity will take place before cluster 4 is deployed.

Transfer of knowledge and resourcing

73. The Office of Information and Communications Technology has not yet built up a robust enough understanding of Umoja to help to develop its transition plans. Such plans require a significant amount of detailed analysis, ranging from clarity around changes from the original design to managing security requirements. However, there has been very little overlap or sharing of resources between the

Umoja project team and the Office in respect of knowledge transfer. For example, Office staff are not embedded within the project team. While it is focused on deploying clusters 3 and 4, the project team will also be unable to prioritize resources to help Office staff prepare for taking over the running of Umoja.

74. The importance of the Office developing a solid knowledge of Umoja is increased by the planned downsizing of the project team beginning in 2016 and the resultant loss of individuals with key knowledge and expertise by the end of 2017. The Administration reports that efforts will be made to retain the technical expertise of the project team. However, in the absence of a detailed transition plan it is not possible to confirm that such plans are realistic. As the end of the project approaches, there is an increased risk of losing skilled resources since project staff may begin to look for other opportunities outside the project unless clear transition and retention plans are in place.

75. In the absence of a detailed and fully costed transition plan, a realistic budget to fund the transition cannot be developed. The Umoja project forecasts do not include this as an explicit cost and there is therefore a risk that substantial and unforeseen costs will need to be absorbed by the Office of Information and Communications Technology.

V. Umoja costs and benefits

Current status

Project expenditure

76. As at 31 March 2015, the Administration had spent $348.3 million on the project (see table 3), effectively exhausting the budget that had been approved at that point until December 2015 ($348.1 million). In order to fund the project activities planned for 2015, the General Assembly approved a further budget increase of $36.9 million in April 2015. The total approved budget to the end of December 2015 is therefore $385.1 million.

77. However, the revised project budget for 2015 was already under pressure at the time of the audit, with $21.6 million having been spent in the first quarter compared with the forecast of $18.2 million. That was mainly due to the cost of additional development work to fix problems identified during the MINUSTAH pilot of Extension 1 functionality and the use of more expensive contractors to fill vacancies in the project team. Between April 2014 and March 2015, the project team had, on average, 11 vacancies out of a funded complement of 90.

78. If the Administration continues to incur an average monthly expenditure ("burn rate") of $7.2million in 2015, equal to that of the first three months of 2015, the project will have exhausted the approved budget by September 2015.

Table 3
Breakdown of expenditure and anticipated costs until December 2015, by category
(Millions of United States dollars)

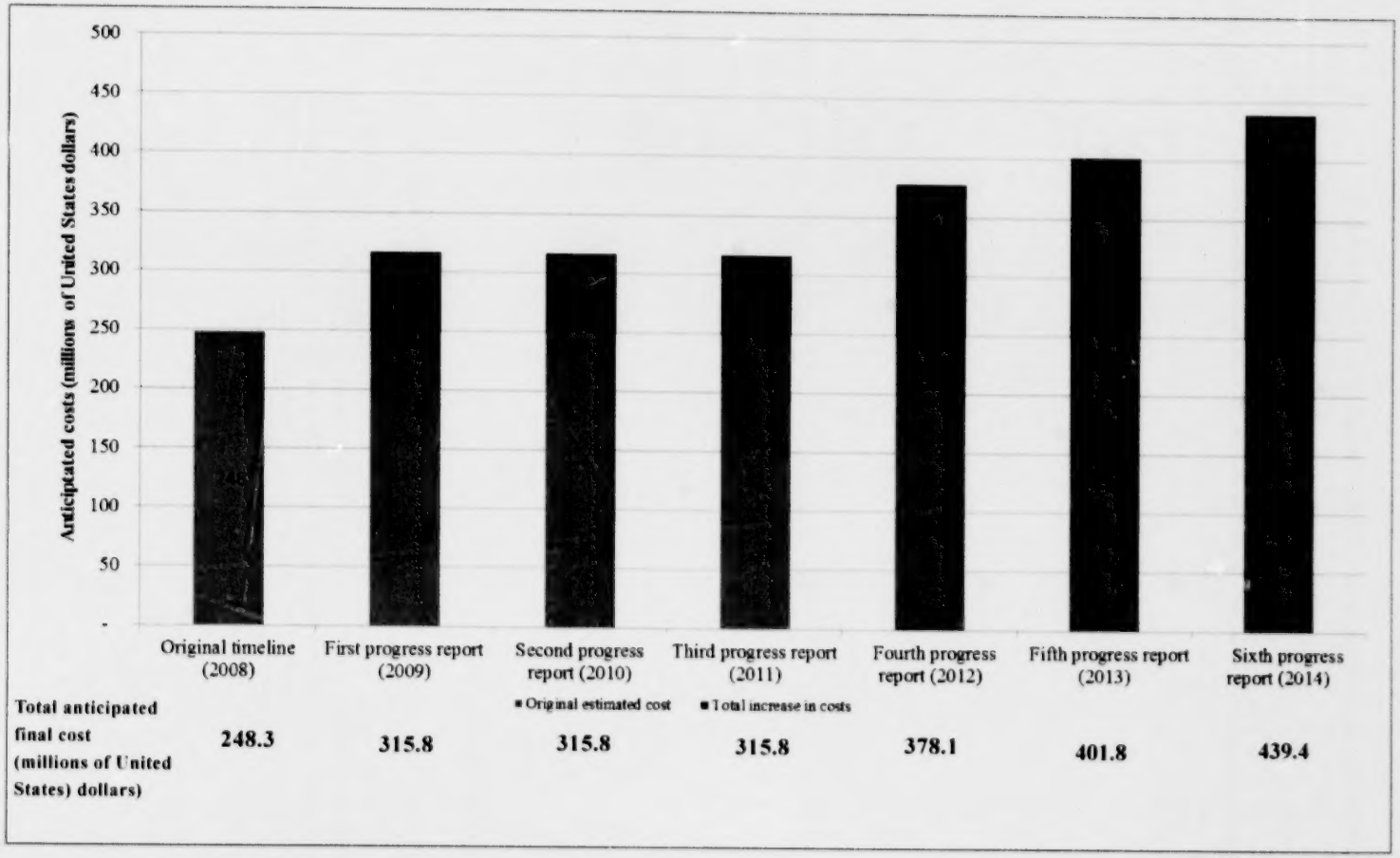
Object of expenditure	*Cumulative expenditure to 30 April 2012*	*Annual expenditure to 31 March 2013*	*Annual expenditure to 31 March 2014*	*Estimated expenditure to 31 March 2015*	*Forecast expenditure to December 2015*	*Cumulative expenditure to December 2015*	*Description*
Staff costs	20.5	12.8	15.9	15.1	12.6	76.9	Cost of the project team
Other staff costs	10.9	4.6	8.6	9.3	10.6	44.0	Temporary staff costs, such as general temporary assistance and subject-matter experts
Consultants and experts	0.9	0.7	0.3	0.3	0.4	2.6	Consulting services covering advice on project management, procurement matters and legal matters
Travel	2.0	0.7	0.6	1.3	1.4	6.0	Site visits relating to change management and site readiness
Contractual services	54.5	47.3	30.3	46.6	11.2	189.9	Includes payments to the design and build vendors for Foundation and Extension 1
General operating expenses	9.0	4.2	2.4	3.0	0.5	19.1	Includes expenditure on office premises and communication
Office supplies and materials	0.8	0	0.1	0.0	0.1	1.0	Office supplies and equipment
Furniture and equipment	24.6	15.3	4.1	1.6	0.0	45.6	Includes expenditure on software licences and maintenance fees
Total, annual	**123.2**	**85.6**	**62.3**	**77.2**	**36.8**	**385.1**	

Source: Administration's data.

Anticipated final cost

79. The Board has previously reported problems and delays at the beginning of the project that over time had led to a significant increase in the estimated final cost (see figure III). In the sixth progress report of the Secretary-General, the Administration forecasted an expenditure of $54.3 million in the biennium 2016-2017. That will be used to complete the implementation of Foundation and Extension 1 and most of the design, build and implementation of Extension 2.While that amount has not yet been approved by the General Assembly, it would, if included, result in a current anticipated final cost of $439.4 million.

Figure III
Estimated final cost of project



Source: Analysis by the Board of the progress reports of the Secretary-General.
Note: The final cost of the project is likely to be higher than the Administration's total estimation of costs in its fourth, fifth and sixth reports as these are based on either very preliminary estimates or do not cover all the likely cost elements

80. The Board considers that the final figure is likely to be higher as the estimates do not take into account the current higher than expected "burn rate" of the budget and the likelihood that the cost of stabilizing the solution in clusters 3 and 4 may exceed current estimates. The Administration has also not yet estimated costs for transition and mainstreaming Umoja, and has allowed no contingency to rectify any problems arising on deployment of new functionality and finalizing of the development of Extension 2.

Indirect or "associated" costs of Umoja

81. The Administration does not have a clear understanding of the indirect costs absorbed by business units for such activities as data cleansing, training and user testing. As previously reported, neither the project nor relevant departmental budgets include explicit provision for such costs.

82. The Administration has sought to estimate the associated costs in some areas, predominantly for information and communications technology. For example, it estimated additional ICT costs amounted to $38.2 million in the 2014-2015 biennium and forecast a further $24.8 million in the 2016-2017 biennium. Inherently, these are broad estimates, with much of the investment also supporting other United Nations systems, not just Umoja. The Administration also estimates that recurrent operating costs for the biennium 2016-2017 will be $29.6 million, with those costs now being absorbed by the entities using Umoja.

83. In considering how to meet the associated costs, the Administration concluded in 2013 that they should be borne by existing departmental budgets and has put that policy into effect for the biennium 2014-2015 budget. The impact of that approach may be a delay or displacement of other activities rather than an increase in departmental costs in real terms. Difficulties in absorbing those costs are greater, however, for entities that rely heavily voluntary on contributions since funding for such activities is not always readily available. The entities may therefore need to use their reserves to meet the associated costs.

Benefits

84. The Administration is committed to realizing cumulative quantitative benefits of between $140 million and $220 million by 2019 (see A/67/360, para. 48). benefits are expected to flow from refined business processes, automation, reduced duplication and streamlined administrative processes. It also expects to start realizing benefits of $81.4 million per year from 2017.

85. The Administration, however, has not reassessed its estimate of annually recurring benefits since 2011, which would allow it to understand what the project might realistically deliver in the current circumstances. As the Board has previously reported, the business case for the benefits followed a reasonable approach at the time, but needed to be revisited as part of the pilot and implementation phases of the project. The Administration has not yet conducted that review. The business case currently has little credibility among senior managers interviewed by the Board, and the Administration has not yet established a clear baseline from which it can measure the benefits actually achieved. As the project nears completion, the Administration has an opportunity to refresh its business case for benefits realization.

86. To ensure that it can release the full potential benefits from Umoja, the Administration needs to clarify whether it can release posts or redeploy staff in practice. The 2011 benefits profile largely relies on the flexible deployment of staff but such changes currently require the approval of the General Assembly. Furthermore, such clarification also relies on the Administration developing finalized detailed benefits realization plans, which has yet to occur.

Target operating model

87. A clear target operating model[4] would provide fundamental support for achieving the Umoja vision and associated organizational transformation. Although the management committee has identified the need for such a model, the Administration has not yet developed proposals for the United Nations.

88. In his sixth progress report (A69/385 and Corr.1), the Secretary-General identifies the vision of a new service delivery model that is closely linked to the ongoing business re-engineering efforts embarked on as part of the process standardization brought by Umoja. That will include the consolidation of some administrative, transactional, back-office tasks throughout the Secretariat. As a result, the United Nations expects Umoja and the new service delivery model to lead to:

(a) Efficiencies and economies of scale over time;

(b) Redirection of resources to value-added work and new functions;

(c) More consistency in the application of regulations and rules;

(d) More timely delivery of services;

(d) Increased transparency and accountability through the standardization of processes and centralized oversight.

89. Proposals for the new global service delivery model will be submitted to the General Assembly at its seventieth session for its consideration and approval. For maximum impact, the proposals for a global service delivery model should be:

- Principles-based, but concrete enough to be able to be implemented;
- Wide-ranging, incorporating most support activities;
- Clearly linked to the global capabilities delivered by Umoja;
- Time-bound and specific, with next steps clearly set out.

90. The Board has also commented previously on the need for Umoja to be considered in the context of other ongoing business transformation projects, such as global field support strategy, IPSAS and human resources mobility, and encouraged the Administration to manage the portfolio of all transformation projects in an integrated fashion. To date, this has not been done and there is therefore a risk that the different business transformation projects will not be coordinated in such a way as to maximize their combined benefit. There is also a risk that the different projects will compete for scarce resources at critical times and that the Organization will not be able to deliver or absorb them as planned. In that regard, the Board noted the

[4] A target operating model is an articulation of how an organization will organize its resources to achieve its strategic objectives, detailing what work will be performed by which staff in which locations.

considerable strain placed on United Nations finance staff to meet the demands of IPSAS along with the demands of meeting Umoja implementation requirements in early 2015.

Optimization of Umoja

91. The need for corrective action in major system deployments of the type required following Umoja deployment is not unusual. However, moving beyond corrective and short-term actions, more fundamental optimization of the Umoja processes, organizational supporting arrangements and the underlying system may also be required. Although the Administration has made improvements to its administrative processes through the Umoja project, evidence is emerging that further significant improvements are still possible.

92. The Department of Field Support, which has the most extensive experience in using Umoja, has already started to undertake various process improvements and infrastructure upgrades. The Department has allocated a budget of $37 million for that work and has already re-engineered the way in which staff will handle some 39 Umoja business processes. Many senior managers within the Administration have also acknowledged that the processes implemented for Umoja can be further improved. The Administration is also increasingly aware of the need to further train and support Umoja users and managers.

93. The Administration recognizes that opportunities exist to prompt further benefits from Umoja but will not have an opportunity to refine and optimize the new ways of working prior to deployment. It is not unusual for organizations to decide to re-engineer business processes once they have had some experience in operating them for a period of time, but these are important undertakings that can be expected to require significant management attention, funding and prioritization.

94. Accordingly, the Board does not expect that they can be achieved by the current Umoja project management in parallel to the deployment of Umoja to clusters 3, 4 and 5. Instead, the Board considers that an optimization project, subject to a clear business case being developed, could begin in 2016.

VI. Acknowledgements

95. The Board wishes to express its appreciation for the cooperation and assistance extended to its staff by the Under-Secretary-General for Management and the project director, together with the members of their staff.

(*Signed*) Mussa Juma **Assad**
Controller and Auditor-General of the United Republic of Tanzania
Chair of the Board of Auditors

(*Signed*) Sir Amyas C. E. **Morse**
Comptroller and Auditor-General of the
United Kingdom of Great Britain and Northern Ireland
(Lead Auditor)

(*Signed*) Shashi Kant **Sharma**
Comptroller and Auditor-General of India

30 June 2015

Annex I

Status of implementation of recommendations

Report reference	*Summary of recommendation*	*Administration comments on status — April 2015*	*Board comments on status — April 2015*	*Fully implemented*	*Under implementation*	*Not implemented*	*Closed by the Board*
A/69/158, para. 29 (a)	Reassess the feasibility of the revised project timetable and budget agreed upon in February 2014, drawing on learning from the roll-out of the Foundation and the pilot of Extension 1.	A revised project deployment timeline was reported in the context of the sixth annual report (A/69/385 and Corr.1). The Administration will take note of the related General Assembly resolution, the report of the Advisory Committee on Administrative and Budgetary Questions (A/69/418), recommendations from the Board of Auditors and the lessons learned from the deployment of cluster 3 in June 2015 in order to finalize the resource requirements for biennium 2016-2017. This will be reported in the seventh annual progress report on Umoja.	This recommendation was made in response to the unrealistic deployment timeline presented for the audit in April 2014. In his sixth progress report, the Secretary-General presented a revised timeline and budget, drawing on experience to date, which also included an improved provision for training. The Board therefore considers that its recommendation was implemented but will continue to keep the project budget and timetable under review.	X			
A/69/158, para. 29 (b)	Heads of business units, the process owners and the project team should each provide positive confirmation to the management committee that all enablers necessary for a successful roll-out are in place.	The heads of business units are actively engaged prior to roll-out to reinforce the level of awareness and commitment of their respective departments/offices. Umoja, together with the project owners, process owners/Chief Information Technology Officer continues to report on a quarterly basis to the management committee on the status of and challenges to the project. Prior to the roll-out of cluster 3, the heads of business units participated in the management committee meeting on 21 May 2015 and confirmed their readiness to go live. The operational readiness review on 31 May 2015, with	This recommendation was made owing to the failure of business readiness testing to identify that peacekeeping missions were not ready. Heads of cluster 3 business units participated in the May management committee meeting, and were also involved in steering committee meetings prior to the go-live stage. The Board therefore considers that this recommendation was implemented for cluster 3 and it will continue to review the position for cluster 4.		X		

Report reference	*Summary of recommendation*	*Administration comments on status — April 2015*	*Board comments on status — April 2015*	*Fully implemented*	*Under implementation*	*Not implemented*	*Closed by the Board*
		participation from the heads of business units, project owners, process owners/Chief Information Technology Officer, confirmed that all necessary enablers for a successful roll-out were in place. The positive confirmation from the heads of business units to the management committee is now recognized as an essential part of the decision to go live.					
A/69/158, para. 29 (c)	Continue to embed the concept of process ownership by strengthening the partnership with heads of business units.	The Administration remains committed to strengthening the partnership with the heads of business units through an ongoing dialogue and collaborative effort with the project owners and process owners/Chief Information Technology Officer. There is a continuous engagement between the process owners and the heads of business units, particularly during the six-month realization phase that precedes each deployment. The process owners and heads of departments and offices share responsibility for critical activities on the realization and deployment plans, which are reflected in an executive-level scorecard for the regular biweekly review of the Secretary-General. Post-deployment proposed activities between the process owners and the departments/offices focus on measuring the change from the "as is" to the "to be" scenarios, finalizing and monitoring the benefits realization plans and	Progress has been made on this recommendation, as acknowledged in section II of the present report. The Secretary-General's scorecard and the "three-day rule" for escalating problems are a positive step towards responding to the Board's previous recommendation on the need to implement a mechanism to solve disagreements between process owners and heads of business units. This recommendation will be judged to be fully implemented when the Administration, "establishes formal mechanisms for agreeing benefits realization plans", in accordance with the 2013 memorandum of Secretary-General on process ownership.		X		

Report reference	*Summary of recommendation*	*Administration comments on status — April 2015*	*Board comments on status — April 2015*	*Fully implemented*	*Under implementation*	*Not implemented*	*Closed by the Board*
		implementing a continuous reform and improvement strategy.					
A/69/158, para. 29 (d)	Ensure that heads of business units have the resources and skills required to implement the standard business processes and new ways of working successfully.	The Administration's response to all recommendations concerning the management of change, the embedding of more efficient and standardized working practices across the Organization and the development of plans for supporting staff in developing the skills, capacity and capability to adopt different working practices is included in the Administration's response to the Board's recommendation in paragraph 31 of document A/67/164 (see below).	The Board has seen no evidence that the heads of business units have defined the resources and skills required to adopt new ways of working in each of their organizations. The Administration has understandably made implementing the enterprise resource planning system the priority. The recommendation set out in paragraph 19 (g) of the summary of the present report indicates that a post-go-live optimization plan should be developed that must take into account the remaining elements identified in this recommendation. On that basis, the Board closes this recommendation.				X
A/69/158, para. 29 (e)	Process owners should use learning from the implementation to date to refine any assumptions around potential qualitative and quantitative benefits when developing benefits realization plans for each department or office.	A baseline study consisting of a "bottom-up" analysis of Umoja benefits, including an approach to continuous improvement, is being planned, with a target completion of the baseline by the first quarter of 2016. It is now in the planning process, and a coordinator will be identified shortly. The exercise will be governed by the process owners and the Department of Field Support in order to reflect lessons learned from deployments to date.	The Board has made clear in all four of its annual progress reports that Umoja offers the potential for significant qualitative and quantitative service delivery benefits, but that the Administration needs to better plan how it will realize them. Process owners, the Chief Information Technology Officer and the Umoja project team have identified potential qualitative benefits for consideration by the steering committee, but the Board has seen no evidence that the original assumptions of the financial benefits have been revisited. Paragraph 19 (f) of the summary of the present report contains a recommendation to refresh the				X

Report reference	*Summary of recommendation*	*Administration comments on status – April 2015*	*Board comments on status – April 2015*	*Fully implemented*	*Under implementation*	*Not implemented*	*Closed by the Board*
			overall business case, which must take into account the remaining elements identified in this recommendation. On that basis, the Board closes this recommendation.				
A/68/151, para. 16	The Board recommends that the Administration design, communicate and implement a plan within each business area to exploit the defined benefits of up-to-date and consolidated data from the ERP system, including how it intends to realize both qualitative and quantitative benefits of improved information.	Following the pilot of the Umoja Business Intelligence Academy in March 2015, the Administration is to conduct Academy sessions on business intelligence in the period 2015-2016 to build the capacity of staff skills to fully realize both the qualitative and quantitative benefits of improved information. The Administration is active in ensuring that data is integrated and can be shared as required between Umoja and any legacy system that remains following the Umoja deployment. This effort has been supported by an active communications and awareness campaign. Progress on the necessary level of business intelligence skills within the Secretariat will be reported as part of the seventh annual progress report on Umoja.	As stated by the Administration, there is a plan in place to train "power users" to perform analysis of the improved data offered by the enterprise resource planning system, but that the implementation of this recommendation will occur following implementation. The Board notes that this also needs to include Extension 2.		X		
A/68/151, para. 19	The Board recommends that the Administration adopt a consistent approach to benefits realization which includes: (a) clear categories of qualitative and quantitative benefits; (b) how the different categories of benefits will be measured; (c) a plan to realize the different benefits; and (d) a process to monitor and sign off when the benefits have been realized.	The Administration supports the view that there is a need for consistency in the way that Umoja benefits are categorized, prioritized, monitored and reported in order to ensure proper integration and the recognition of synergies, the identification of potential overlaps and Secretariat-wide coherence. However, the Administration stresses that that each process owner should be able to adopt	The Board has made clear in all four of its annual progress reports that Umoja offers the potential for significant qualitative and quantitative service delivery benefits, but that the Administration needs to better plan how it will realise them. Process owners, the Chief Information Technology Officer and the Umoja project team have identified potential qualitative benefits for consideration by the steering committee, but the Board has seen				X

Report reference	*Summary of recommendation*	*Administration comments on status — April 2015*	*Board comments on status — April 2015*	*Fully implemented*	*Under implementation*	*Not implemented*	*Closed by the Board*
		a different approach (e.g., bottom-up, through extensive consultation, and/or top-down).	no evidence that the original assumptions of the financial benefits have been revisited. Paragraph 19 (f) of the summary of the present report a contains a recommendation to refresh the overall business case, which must take into account the remaining elements identified in this recommendation. On that basis, the Board closes this recommendation.				
A/68/151, para. 26	The Board recommends that the Administration design a robust methodology which clearly defines: (a) the current status of operational performance in each business unit regarding time, cost, quality; (b) the level of future performance to be achieved post-implementation; (c) the approach and investment involved to achieve the future performance target; and (d) how the benefit achieved will be measured and reported.	In close cooperation with the International Public Sector Accounting Standards (IPSAS), the Administration has aligned Umoja performance metrics across the six categories of qualitative benefits communicated to the General Assembly. The analysis of Umoja qualitative keys drivers and indicators will be discussed with the process owners and considered by the Umoja governance bodies in 2015. The Administration acknowledges the unfinished work associated with the development of a robust methodology to define post-implementation operational performance and the commensurate return on investment, and will update the Assembly in the context of the seventh annual progress report on Umoja.	This recommendation was made in response to the Board's findings on weaknesses in the operations management of end-to-end administrative processes in several departments and the lack of a holistic approach to operational improvement in the United Nations. Responding to this recommendation is the responsibility of each business unit, drawing on support from process owners, the Umoja project team and several project teams responsible for other improvement initiatives such as the global service delivery model, IPSAS, human resources mobility, flexible workspace and wider estates management, the global field support strategy and the information and communications technology (ICT) strategy. The Administration is developing plans to mitigate its key enterprise risk on business transformation (see the report of the Secretary-General on the accountability system in the United Nations Secretariat (A/69/676)). According to draft proposals, each department			X	

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			needs to define an "end state" that takes into account the different improvement initiatives currently under way. If implemented as currently proposed, this should result in business units planning how they will use the different tools and capabilities now becoming available to them through the various initiatives outlined. This should both improve operations management in the United Nations and close this recommendation. This recommendation is considered not implemented.				
A/68/151, para. 44	The Board recommends that the Office of Human Resources Management confirm that the current training budget will fund the appropriate level of training for the required number of staff.	The Office of Human Resources Management will continue to reprioritize the centrally managed training fund to support high training costs associated with strategic Secretary-General initiatives (e.g., ICT strategy, IPSAS, Umoja, mobility and, potentially, the global service delivery model. To date, the costs associated with this have been absorbed within the level of appropriation.	This recommendation was made in response to uncertainty about how departments would fund training staff following the classification of training as an indirect cost to the project by the Controller. Since then, the Board notes that increased funding for Umoja training was approved by the General Assembly in March 2015, and the main cause of its concerns has been addressed. Accordingly, it has closed this recommendation but will continue to keep the adequacy of Umoja training budgets under review.				X
A/68/151, para. 64	The Board recommends that the Administration issue guidance to departments and offices on how the associated costs of the ERP project should be quantified, managed and tracked.	The Administration has issued guidance to departments and offices on how the associated costs of the enterprise resource planning project should be quantified, managed and tracked.	This recommendation was made in response to uncertainty about how departments would meet the costs of implementing Umoja. In July 2014, the Administrations stated that there would be no action taken on this recommendation since "collating this information requires additional manual processes and efforts, which could, in the view of the Administration, be better directed to business readiness and training activities". None of the departments interviewed by the				X

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			Board has received a methodology to quantify, manage and track associated costs. These costs therefore remain unknown, but are likely to be substantial and to displace other activities. At this stage of the project lifecycle, and given that each department has already submitted its budgetary request for 2016-2017, the Board considers this recommendation not implemented but closed.				
A/68/151, para. 81	The Board recommends that the project team prepare an overarching commercial strategy which seeks to (a) optimize the value from major suppliers to the ERP project, balancing cost and risks to delivery; and (b) sets out the parameters against which all future procurements should be undertaken.	The Administration has demonstrated evidence of a considered commercial approach to the remaining Umoja procurements. The Administration intends to include in the final Umoja mainstreaming plan the long-term commercial strategy and dependencies and to report to the General Assembly in the context of the budget submission for the biennium 2018-2019.	The Administration has provided a considerable amount of evidence, but, in the Board's view, the evidence does not constitute a commercial strategy. The recommendation will remain open until the Board sees evidence of a long-term commercial strategy for the whole lifecycle of Umoja. However, given the shift in responsibilities to the Chief Information Technology Officer, in accordance with the approved ICT strategy, the Board has reworded the recommendation, which is now directed to the Officer in order to ensure that accountability for implementation of part b of the recommendation is clear.		X		
A/68/151, para. 82	The Board also recommends that the Administration review the need to more generally develop its commercial skills and ability to support major projects.	The Administration has taken steps to improve the training of procurement staff in a number of disciplines. In addition, the Administration has recently established a global contract with a vendor for the design and delivery of project management training. Prince2 project management training	This recommendation reflected the Board's wider concerns about the commercial capability of the United Nations to engage with the market and drive best value. As stated in the report of the Board on the United Nations (A/70/5 (Vol. 1)), the Administration has taken steps to improve the training of procurement staff in a number of disciplines, but				X

Report reference	Summary of recommendation	Administration comments on status — April 2015	Board comments on status — April 2015	Fully implemented	Under implementation	Not implemented	Closed by the Board
		continues to be available to selected staff in order for them to improve their project management skills.	has no skills strategy to improve wider commercial capability. As the Board previously acknowledged, the Umoja project team has demonstrated considerable commercial acumen in managing relations with its suppliers. Since this recommendation is wider than the Umoja project, and needs to be addressed at the corporate level, the Board considers that it would be more appropriate as part of its work on procurement, and on that basis, the recommendation is closed.				
A/68/151, para. 84	The Board recommends that the ERP project team finalize as a matter of urgency the work to develop (a) a detailed and fully integrated project plan; and (b) significantly enhanced project management arrangements to enable more detailed cost and timetable forecasting, and control of risks, including appropriate scenario and contingency planning.	Umoja Project planning and reporting processes have been improved to provide regular status updates and to better support decision-making across project activities. A project tool is now in place that enables project plans to be managed by sub-project teams and consolidated by the Umoja project management office. Status reports and scorecard data are now extracted directly from the master project plan. The Administration acknowledges the unfinished work associated with the development of enhanced project management arrangements to enable more detailed cost and timetable forecasting and control of risks, including appropriate scenario and contingency. Progress towards finalizing all project management actions will be reported as a part of the seventh annual progress report on Umoja.	In section III of the present report, the Board states that the Administration has continued to improve its project management disciplines and has further strengthened the Umoja project management office through training and the use of new software to track progress against an integrated project plan within the project.		X		

Report reference	*Summary of recommendation*	*Administration comments on status — April 2015*	*Board comments on status — April 2015*	*Fully implemented*	*Under implementation*	*Not implemented*	*Closed by the Board*
A/68/151, para. 105	The Board recommends that the Administration design and implement assurance mechanisms which enable the steering committee to challenge the project on scenarios which may impact on current performance and on future delivery.	The Administration conducts peer reviews and technical assurance through the Umoja systems integrator quality assurance practice. Those same resources have been engaged to review how (a) reliable the project implementation is (schedule feasibility, cost management, earned value, risk and issue management, and scenario planning); (b) how effective the solution deployment is (operational readiness, training and knowledge-sharing, support processes and personnel); and (c) how the Umoja solution is being adopted by staff — (open-ticket backlog, process and staff efficiency, impact on operating model and benefits realization). Progress towards finalizing all necessary actions will be discussed with the Umoja governance and will be provided in the seventh annual progress report on Umoja.	The United Nations does not have a system of independent assurance for major projects that would enable senior management to challenge those delivering projects more effectively and it has no inclination to develop such a mechanism for Umoja. Obtaining technical assurance and the use of peer reviews through the Umoja systems integrator may be valuable but lacks the level of independence and objectivity required.				X
A/68/151, para. 112	The Board recommends that to support better informed decision-making, the project team provide status updates to the steering committee that reflect uncertainty levels relating to forecasts concerning cost, time and quality (for example, by including best case, worst case and likely case scenarios).	The Administration has demonstrated evidence of improved project planning and reporting processes, as noted in its response to the Board's recommendation in paragraph 84 of document A/68/151 (see below).	Reporting by the Umoja project team to the steering committee has continuously improved since the Board made this recommendation, and strong progress has been made. Although uncertainty levels and scenario analysis are still not reported, the Board questions whether, even if this were instigated, such analysis would inform the committee's decision-making process. On that basis, this recommendation has been closed.				X

Report reference	*Summary of recommendation*	*Administration comments on status — April 2015*	*Board comments on status — April 2015*	*Fully implemented*	*Under implementation*	*Not implemented*	*Closed by the Board*
A/67/164, para. 21	The Board recommends that, in order to enable transparent planning and reporting of the achievement of the projected benefits of implementing the ERP system and to ensure clarity as to whether their achievement will require posts to be released or redeployed, the Administration consult the General Assembly on its benefit-realization plans.	The Administration acknowledges the unfinished work associated with the development of Umoja benefit realization plans. As requested by the General Assembly, and taking into account the relevant recommendations of the Advisory Committee on Administrative and Budgetary Questions and of the Board of Auditors, the Administration will update to the Assembly in the next annual progress report on Umoja. In particular, the Administration will report on: (a) qualitative benefits to be achieved; (b) the use of data and information to enhance decision-making, and on improvements in the operations of the Organization and in programme delivery; (c) how the quantitative benefits are expected to be achieved, and on the methodology used to estimate those benefits.	Paragraph 19 (f) of the summary of the present report contains a recommendation for a review of the overall business case, including any redeployment of staff. On that basis, the Board closes this recommendation.				X
A/67/164, para. 31	The Board recommends that the Administration: (a) clearly set out how it will manage change and embed more efficient and standardized working practices across the Organization; and (b) develop plans for how staff will be supported to develop the skills, capacity and capability to adopt different working practices.	The Administration continues to make progress in implementing the Board's change management recommendations through the introduction of (a) standardized working practices across the Organization; (b) training and certification provided through the Umoja Academy for staff at various levels and in different categories; (c) Secretariat-wide awareness and communication campaigns; (d) standardization of the management of training through the INSPIRA enterprise learning management system; and (e) continued issuance of	Part (a) of this recommendation is fundamental to the Administration's ability to more effectively deliver administrative support functions, including finance, human resources, logistics and procurement. The recommendation was made in response to parochial and inefficient working practices identified by the Board in its review of United Nations business processes prior to the implementation of Umoja. Without a fundamental shift in how departments manage their business processes, of which the new enterprise resource planning system		X		

Report reference	*Summary of recommendation*	*Administration comments on status — April 2015*	*Board comments on status — April 2015*	*Fully implemented*	*Under implementation*	*Not implemented*	*Closed by the Board*
		policies, procedures, guidelines and job aids to provide ongoing support to business units and staff. Through the mechanism of the Enterprise-wide Risk Management Framework, the development of the holistic change framework is ongoing and, by necessity, includes the Organization's response to a changing environment brought on by the implementation of strategic initiatives such as the ICT strategy, IPSAS, Umoja, mobility and, potentially, the global service delivery model. Included as elements of the plan are actions necessary to further enhance the standardization of working practices across the Organization and the development of plans for how staff will be supported to develop the skills, capacity and capability to adopt different working practices.	is one element, the Administration will continue to use scarce resources on administrative support activities, resources could be deployed to front-line activities. The Board has reviewed the risk treatment and response plan and, while sound in theory, considers that work needs to be done by business units to enable this recommendation to be judged as implemented. Part (b) of the recommendation is judged as implemented through the Administration's plans to enhance the approach to training referred to in section III of the present report. The issue of whether the execution of those plans resulted in the required level of capability in clusters 3 and 4 will be assessed in the next audit.				
A/67/164, para. 32	The Board also recommends that the Administration establish a formal approach to managing and improving business processes to enable continuous reform and improvement following implementation of the ERP system.	The governance and management mechanisms to implement significant changes to the Umoja solution, together with a Secretariat-wide continuous reform and improvement strategy, has not yet been fully developed. An approach has been developed for discussion with the process owners and for consideration by the Umoja governance bodies.	The recommendation was made in response to concerns relating to the wider management of end-to-end business processes of which the information technology-enabled process steps contained in the enterprise resource planning solution are one part. The United Nations approach to process management requires significant rethinking, and a formal approach to continuous improvement is one element of this. The Board notes the Administration's plans, but continues to caution that a true culture of continuous improvement as part of a wider management system can take years to fully achieve.				X

Report reference	*Summary of recommendation*	*Administration comments on status — April 2015*	*Board comments on status — April 2015*	*Fully implemented*	*Under implementation*	*Not implemented*	*Closed by the Board*
A/67/164, para. 52	The Board recommends that the Administration: (a) establish a detailed project plan linking the budget to milestones and deliverables; (b) clearly set out who owns each part of the budget and what they are responsible for delivering; (c) establish arrangements for capturing information on expenditure and progress to enable it to more effectively monitor progress, maintain closer control over costs and improve decision-making about future expenditure.	The Administration has implemented several compensating measures to ensure that costs are managed and the financial impact of project decisions are taken into account. The Administration acknowledges the unfinished work associated with the development of enhanced project management arrangements to establish: (a) a project plan linking the budget to milestones and deliverables; (b) ownership of each part of the budget and what each is responsible for delivering; and (c) mechanisms to capture information on expenditure to enable effective monitoring, closer control over costs and improved decision-making about future expenditure. The lack of a system to capture budgets and actual costs against predetermined milestones or work streams is a major factor in the project's inability to implement this recommendation fully. On 1 November 2015, the Umoja project will be managed in the Umoja system. As part of the pre-implementation planning, the project systems functionality will be used to identify all the project elements in the work breakdown structure. Umoja reporting and monitoring will be implemented in accordance with the Board's recommendations.	The Umoja project management office has again improved the information systems and processes used to monitor and forecast costs against deliverables since the Board first made this recommendation. In its next audit, the Board will examine whether the Umoja system provides the Administration with the functionality stated. However, given the practical difficulties involved, the $348 million already spent and all major Umoja procurement contracts awarded, the Board considers that this recommendation should be closed.				X

Report reference	*Summary of recommendation*	*Administration comments on status — April 2015*	*Board comments on status — April 2015*	*Fully implemented*	*Under implementation*	*Not implemented*	*Closed by the Board*
A/67/164, para. 75	The Administration agreed with the Board's recommendation that senior management put appropriate controls in place so that they can clearly demonstrate to the General Assembly that assurance can be placed on the reported timetable, and actual and anticipated costs for the ERP project	The Administration continues to conducts peer reviews and quarterly technical assurance through the Umoja systems integrator. Notwithstanding these ongoing operational assurance mechanisms, the Administration has yet to fully implement a solution that demonstrates to the General Assembly assurance on the reported timetable as well as the actual and anticipated costs of Umoja. A methodology has been developed for discussion with the process owners and consideration by the Umoja governance bodies. The focus is on identifying actions and reporting metrics/mechanisms that provide assurance on: (a) project implementation by assessing e deployment schedule feasibility; earned value and expenditure; risk and issues framework; and scenario planning and "what-if" analysis; (b) solution deployment by assessing operational readiness prior to "go-live", training and knowledge sharing, the readiness of the support processes and personnel; and (c) post-go-live operations by assessing the level of adoption of the Umoja processes and ways of working.	This recommendation reflects concerns held by the Board, since the sixty-seventy session of the General Assembly, in that the timeline and budget of the enterprise resource planning project were unrealistic and the information being presented to the Fifth Committee could have been more transparent. The Administration has since instituted the provision of regular updates to the Fifth Committee by the project owner and produces annual progress reports that have provided the Assembly with enough information to approve successive changes in the timeline and increases in the budget. The measures outlined by the Administration are welcome enhancements and to be encouraged, and, in the Board's view, the issues that prompted the original recommendation have been addressed.	X			

Report reference	*Summary of recommendation*	*Administration comments on status — April 2015*	*Board comments on status — April 2015*	*Fully implemented*	*Under implementation*	*Not implemented*	*Closed by the Board*
A/67/164, para. 80	The Board recommends that the chair of the steering committee and the project director: (a) assign clear ownership of project risks to those with the authority to address such risks; (b) assess and document the likelihood of the occurrence of each risk, including quantified impacts; and (c) establish regular risk monitoring as part of the ongoing budgeting and resourcing arrangements.	The Administration has demonstrated evidence of effective management of risks and issues. The tool used to record and monitor risks (register/database of register of risks, assumption issues and dependencies) is regularity updated and maintained.	The Umoja project team has continuously improved risk management tools and processes since the Board made this recommendation. This has helped to improve the management of risks facing the implementation of the information technology elements of the Umoja project. As stated by the Board in its previous report, the project is at the stage in its lifecycle where the priority risks relate to business units (a) implementing the enterprise resource planning system; and (b) using the system to drive more effective ways of working. In paragraph 19 (a) of the present report, the Board recommends more visible leadership of senior leaders of the business units, including the identification and management of risks by senior leaders in the business units, drawing on process owners and the Umoja project team as required. On that basis, the Board considers this recommendation implemented.	X			
Total				**3**	**6**	**3**	**9**
Percentage				**14**	**29**	**14**	**43**

Annex II

Organizations deploying the enterprise resource planning system (Umoja)

Cluster 1

Peacekeeping missions

United Nations Mission for the Referendum in Western Sahara (MINURSO)

United Nations Stabilization Mission in Haiti (MINUSTAH)[a]

United Nations Organization Stabilization Mission in the Democratic Republic of the Congo (MONUSCO)

Regional Service Centre — Entebbe, Uganda

African Union/United Nations Operation in Darfur (UNAMID)

United Nations Disengagement Observer Force (UNDOF)

United Nations Peacekeeping Force in Cyprus (UNFICYP)

United Nations Global Service Centre — Brindisi, Italy

United Nations Interim Force in Lebanon[b] (UNIFIL)

United Nations Interim Security Force for Abyei (UNISFA)

United Nations Interim Administration Mission in Kosovo (UNMIK)

United Nations Mission in Liberia (UNMIL)

United Nations Mission in South Sudan (UNMISS)

United Nations Operation in Côte d'Ivoire (UNOCI)

Office of the Special Coordinator for Lebanon[b]

United Nations Support Office for the African Union Mission in Somalia

[a] Umoja Integration pilot.
[b] Umoja Foundation pilot.

Cluster 2

Special political missions supported by the Department of Field Support

United Nations Integrated Peacebuilding Office in the Central African Republic (BINUCA)

United Nations Office in Burundi (BNUB)

United Nations Multidimensional Integrated Stabilization Mission in Mali (MINUSMA)

Office for the Joint Special Representative of the United Nations and the League of Arab States for Syria

Office of the Special Envoy of the Secretary-General for the Sahel

Special Envoy of the Secretary General for the Great Lakes Region

United Nations Assistance Mission in Afghanistan (UNAMA)

United Nations Assistance Mission for Iraq (UNAMI)

United Nations Integrated Peacebuilding Office in Guinea Bissau (UNIOGBIS)

United Nations Military Observer Group in India and Pakistan (UNMOGIP)

Kuwait Joint Support Office

United Nations Regional Office for Central Africa

United Nations Office for West Africa/Cameroon-Nigeria Mixed Commission

United Nations Regional Centre for Preventive Diplomacy for Central Asia

Office of the United Nations Special Coordinator for the Middle East Peace Process

United Nations Support Mission in Libya (UNSMIL)

United Nations Assistance Mission in Somalia (UNSOM)

Accra

United Nations Mission for Ebola Emergency Response (UNMEER)

Cluster 3

Nairobi group

United Nations Environment Programme (UNEP)

United Nations Human Settlements Programme (UN-Habitat)

United Nations Office at Nairobi

Bangkok

Economic and Social Commission for Asia and the Pacific (ESCAP)

Office for the Coordination of Humanitarian Affairs

Phnom Penh

United Nations assistance to the Khmer Rouge trials

Cluster 4

Field missions[a]

Clusters 1 and 2 and the missions below

Committee on Missing Persons in Cyprus

United Nations Multidimensional Integrated Stabilization Mission in the Central African Republic[b] (MINUSCA)

Office of the Special Adviser l on Cyprus

Office of the Special Adviser to the Secretary-General on Yemen[c]

Office of the Special Envoy of the Secretary-General for Syria[d]

Office of the Special Envoy for the Sudan and South Sudan[c]

Somalia and Eritrea Monitoring Group

United Nations Office to the African Union[c]

United Nations Representative to the Geneva International Discussions[c]

Addis Ababa

Economic Commission for Africa (ECA)

Beirut

Economic and Social Commission for Western Asia (ESCWA)

Santiago

Economic Commission for Latin America and the Caribbean (ECLAC)

Geneva group

Economic Commission for Europe (ECE)

International Trade Centre (ITC)

International Criminal Tribunal for the former Yugoslavia

International Residual Mechanism for Criminal Tribunals

Office of the United Nations High Commissioner for Human Rights (OHCHR)

United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa

United Nations Conference on Trade and Development (UNCTAD)

United Nations Framework Convention on Climate Change

United Nations Office for Disaster Risk Reduction

United Nations Office at Geneva

New York group

Counter-Terrorism Committee Executive Directorate

International Criminal Tribunal for Rwanda[a]

Department for General Assembly and Conference Management

Department of Economic and Social Affairs

Department of Field Support

Department of Peacekeeping Operations

Department of Management

Department of Political Affairs

Department of Public Information

Department of Safety and Security

Executive Office of the Secretary-General

International Civil Service Commission

Office for Disarmament Affairs

Office of Internal Oversight Services

Office of Legal Affairs

United Nations Joint Staff Pension Fund

Vienna group

United Nations Interregional Crime and Justice Research Institute

United Nations Office on Drugs and Crime

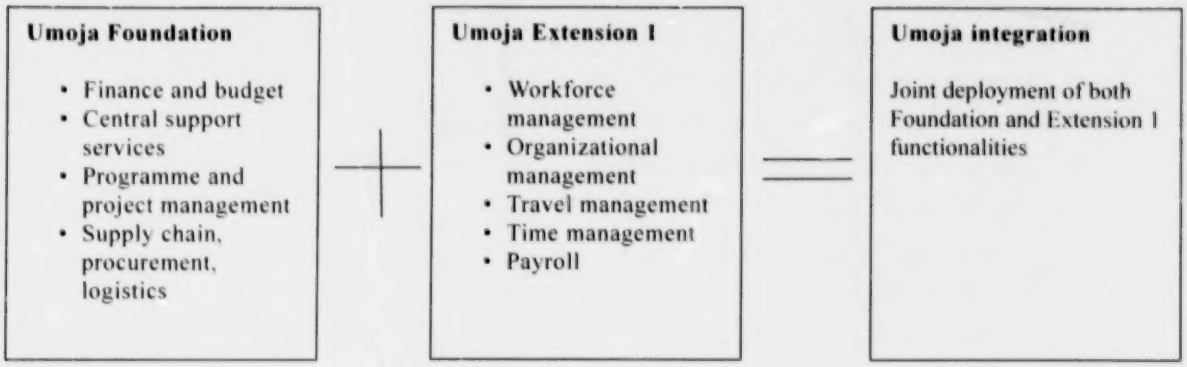
United Nations Office at Vienna

[a] Umoja Extension 1 (international staff).
[b] Previously called the United Nations Integrated Peacebuilding Office in the Central African Republic (BINUCA).
[c] Umoja Integration.
[d] Previously called Office for the Joint Special Representative of the United Nations and the League of Arab States for Syria.

Cluster 5

Peacekeeping and special political missions[a]

[a] Umoja Extension 1 (national staff).


Umoja Foundation
• Finance and budget
• Central support services
• Programme and project management
• Supply chain, procurement, logistics
Umoja Extension 1
• Workforce management
• Organizational management
• Travel management
• Time management
• Payroll
Umoja integration
Joint deployment of both Foundation and Extension 1 functionalities

Annex III

Functionalities being deployed through the enterprise resource planning system (Umoja)

Foundation	*Description*
Central support services	Services provided to the public and staff • Sales (third-party procurement services and billing customers) Facilities management • Real estate administration • Real estate planning
Programme and project management	• Project initiation • Project planning • Project execution • Performance monitoring
Finance and budget	Financial management • Budget implementation • Grants management Cost and management accounting • Accounting for specific events and activities — internal orders • Overhead accounting: cost centre accounting Financial accounting • Asset accounting • General ledger • Accounts payable • Accounts receivable • Taxes and insurance Cash management and treasury • Bank management • Cash and liquidity management • Investment accounting • Treasury and risk management — investments

Foundation	*Description*
Supply chain/ procurement/ logistics	Source to acquire • Requisition to purchase order • Low-value acquisition • Contract management • Supplier collaborations Receipt and inspection • Inbound processing • Outbound processing • Warehouse and storage Equipment maintenance • Equipment assignment and management • Equipment maintenance and operations • Decommission and disposal

Extension 1	*Description*
Workforce management	• Personnel administration (onboarding/contract renewal/movements/separations) • Entitlements • Maintain human resources reference tables • Core master data management • Medical and life insurance enrolment • Life and work events • Claims under Staff Rules, Appendix D, and malicious acts insurance policy • Annual enrolment • Special leave without pay — prepaid insurance and pension
Organizational management	• Manage reorganization • Maintain organization structure

Extension 1	*Description*
	• Create position (non-post)
	• Maintain position
	• Loan position
	• Bulk extension of positions
	• Human resources budget implementation
Travel management	• Official business travel
	• Human resources travel
	• Uniformed personnel travel
	• Shipment of personal effects
	• Travel master data
	• Travel expenses
	• Ticket billing and invoicing solution
Time management	• Leave management
	• Manage work schedules
	• Positive time recording
	• Request for overtime and compensatory time off
	• Evaluate time data
Payroll	• Staff payroll
	• Pension Reconciliation
	• United States tax data collection
	• Claims processing — overpayment
	• Arrears processing
	• Off-cycle processing
	• Replacement payments and disbursements
	• Reversals and voids
	• Maintain payroll master data

Source: Umoja project website.